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MEDICINE IN THE NATION'S CAPITAL—1817-1942*

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THE seat of the Government of the United States was established on the banks of the Potomac River by an Act of Congress passed in the year 1790. On September 16, 1793, President Washington laid the cornerstone of the Capitol building, and on the third Monday in November, 1800, Congress held its first session in the new City of Washington.

It was only 17 years later, on September 24, 1817, that 16 physicians of Washington and Georgetown met at Tennison's Tavern on Pennsylvania Avenue and passed the following resolution: "Resolved, that the physicians attending this meeting deem it important and expedient to organize at once a society in the District for the promotion of medical science." A constitution and by-laws were adopted at meetings held in November, and at a meeting held on January 5, 1818, Charles Worthington was elected the first President and Henry Huntt the first Secretary of the Medical Society of the District of Columbia. A charter was granted to the new Society by act of Congress and was signed by President Monroe on February 16, 1819. In that same year a man notable in the early history of the Capital City became a member of the Society. The name of William Thornton is no. 30 on the list of members of the Medical Society of the District of Columbia. He was born in Tortola Island, West Indies, graduated in medicine in Edinburgh, 1784, and settled in Washington in 1793. He was the designer and architect of the Capitol building. He was in charge of patents from the passage of the act of Congress, 1802, until his death in 1828. In 1794 he was appointed by President Washington one of the three Commissioners of the District of Columbia.

We have met tonight to commemorate the 125th anniversary of the founding of our Medical Society. The century and a quarter which has passed since its birth has witnessed the growth of our nation from a weak and struggling state, whose very existence was repeatedly threatened by powerful European governments, to the richest and most powerful nation in the world. During that time the city of Washington has developed from a few public buildings and collections of small houses widely separated from each other and bordered by the Potomac marshes, into a city of magnificent public buildings and a population of a million people, filling the District of Columbia and overflowing into the surrounding territory of Maryland and Virginia.

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*Address given on the 125th Anniversary of the Society, December 9, 1942.

The small medical society organized here a hundred and twenty-five years ago has now grown to a membership of more than a thousand. The period of its existence has witnessed a greater progress in the cure and prevention of disease than had taken place in all preceding time. Here in the Nation's Capital the Medical Society of the District of Columbia has had an honorable share in putting into effect all of those preventive and curative measures that medical progress has made available to the human race.

It is not our purpose at this time to recite in detail the history of our medical society. It is appropriate, however, at this anniversary to recall a few of the outstanding events in which the Society has had a part and to mention with gratitude and honor a few of our members who have made extraordinary contributions to the welfare of the Society and to the community of which it is a part.

From the earliest days down to the beginning of the present century the Society's annals refer almost continuously to the efforts made to control or cure five diseases, three of which were constantly present in Washington and two of which recurred with terrifying frequency.

Very few present members of this Society have ever seen cases of Asiatic cholera and still fewer have seen such cases within the District of Columbia. Nevertheless, during the preceding century two serious epidemics of the disease occurred in this community, one in 1832 and another in 1865–66. Sporadic cases of the disease continued to occur in the United States until about 1911, when it practically disappeared.

Another disease which was seen with great frequency by earlier members of our Society during the last century was smallpox. An almost continuous effort was put forth by many members of the Society down through the century to secure vaccination of the entire population of the District. Even now, when it is recognized beyond the shadow of a doubt that vaccination prevents smallpox, this medical society finds it necessary almost every year to combat the activities of misguided anti-vaccinationists.

The three diseases which were constantly present in Washington during the 19th century and which took a far greater toll than the more terrifying cholera and smallpox were typhoid fever, malaria and tuberculosis. By the end of that century the battle against typhoid and malaria was almost won and that against tuberculosis was well begun.

No pages in the history of preventive medicine in the District of Columbia reflect greater credit upon our organization than those that relate the events in the struggle to secure a pure water supply for this city. Previous to the year 1890 and continuing until the present filtration plant was authorized by Congress, this Society and committees appointed by it and also individual members of the Society carried on an almost continuous campaign for adequate purification of the water supply of the city, which then as now came from the Potomac River. Dr. George M. Kober was one who early recognized the fact that the contaminated water supply was a chief cause of the high incidence of typhoid fever in the Capital. A notable report was prepared in 1894 by a committee of the Society composed of Drs. W. W. Johnston, G. L. Magruder and C. M. Hammett containing many recommendations for improving the methods of disposal of sewage and the purification of the water and milk supply. One of the recommendations of this report was to the effect that plans be completed for the sedimentation of the Potomac water and the construction of works for filtration, which, the report stated, is "the only proper method of purification." This report was presented by invitation to the Committee of the House of Representatives on the District of Columbia which ordered it printed as a public document.

A report to the Society by its Committee on

Public Health on January 26, 1896, declares that sand filtration is the "most convenient and effective method for the purification of drinking water" and "must be adopted ultimately for the water supply of Washington." At that same meeting the Society adopted the resolution, "That the general water supply should be purified by sedimentation and filtration (the first being necessary at certain times and the second at all times) before it is admitted to the mains."

Then began a battle which continued for several years between those who favored the method of slow sand filtration and the proponents of mechanical filtration. This Society consistently and energetically advocated the adoption of slow sand filtration. The "History of the Medical Society of the District of Columbia" states that at the final inquiry on this matter before the House Committee of the District of Columbia "Dr. W. C. Woodward, in behalf of natural, slow sand filtration, conducted the examination of the experts in a masterful and efficient manner." Dr. Woodward was at that time Health Officer of the District of Columbia, having been appointed to that position in 1894 upon recommendation of this Society. It is not out of place here to mention with pride the notable career of Dr. Woodward, who after long and efficient service in this City as its Health Officer became the head of the Bureau of Legal Medicine and Legislation of the American Medical Association. Through many years in that position he was instrumental in securing much important legislation for the advancement of medicine and in preventing passage of many laws which would have been harmful to the people's health. In his well merited retirement, he is again a member of this Society, which welcomes him back home.

Through the efforts of such far-seeing and courageous men the slow sand filter was constructed, the Capital was assured a pure water supply, and for the first time in its history typhoid fever was brought under control and finally disappeared as an endemic disease.

In connection with the stamping out of typhoid fever we must mention the part that this Society took in securing for the District of Columbia a pure milk supply. The first law to regulate the supply of milk to Washington was passed in March, 1895. The member of the Society who was most influential in the preliminary agitation for control of the milk supply, who assisted in the preparation of the bill which was finally passed by Congress, and who worked constantly with committees of the Society to secure its enactment was Dr. G. Lloyd Magruder. Dr. Woodward, who was the Health Officer, was a member of the committee which put the bill in final form as it was recommended to Congress. The "History of the Medical Society of the District of Columbia" states, "The influence of the Society was a most potent factor in securing this legislation, which required the inspection of dairy farms and a permit from the Health Officer before milk could be shipped to this city. This made Washington one of the first cities in the United States to require such a permit." The control of our milk supply initiated at that time and perfected as the years have passed, especially by additional legislation in 1910, not only helped in the elimination of typhoid fever but had a most important influence in the reduction of infant mortality, which fell markedly when the provisions of the law went into effect.

It is proper here to relate the part taken by the Medical Society of the District of Columbia in securing a law regulating the sale of viruses, serums, toxins and analogous products.

In the early part of 1902, Dr. Z. T. Sowers, a member of the Society, because of the occurrence of tetanus in various parts of the United States following the administration of anti-diphtheritic serum, requested Dr. Woodward, the Health Officer, to consider what could be done to safeguard the use of diphtheria antitoxin, which has played such a beneficent role in control of that dread disease. The business of producing the anti-diphtheritic serum was not carried out in the District of Columbia and no case of tetanus from this cause had occurred in the District. There was nothing, however, to prevent the occurrence of such cases here or in any other community in the United States since there was no federal law and no state law regulating the production, distribution and sale of anti-diphtheritic serum or any other serum, toxin, virus or analogous remedy.

Because of these facts Dr. Woodward drafted a law safeguarding this situation throughout the entire United States. The Medical Society of the District of Columbia approved it and led the fight for its enactment. It became a law on July 1, 1902 as "An Act to regulate the sale of viruses, serums, toxins and analogous products in the District of Columbia, to regulate interstate traffic in said articles, and for other purposes."

This is the act under which the Federal Government ever since the time of its enactment and at the present time safeguards the production, distribution and sale of remedies such as are described in the act, intended for use of human beings. A similar act was subsequently passed for the protection of domestic animals.

The organized battle against tuberculosis in the United States gained little headway until about the year 1900. From that time until the present day the records of the Society show a continuous interest on its part in control of this disease. The Society had an important part in securing the erection of the first Tuberculosis Hospital which was completed on Varnum Street in 1908. Society members who were prominent in anti-tuberculosis activity in those early days were Drs. George M. Kober, John B. Nichols, S. S. Adams, Sterling Ruffin, John D. Thomas and many others.

The effectiveness of the campaign against tuberculosis in the United States is attested by the fact that in the year 1900 more than 200,000 people lost their lives from this disease while now the mortality is reduced to about 50,000 per year. Here in the District there have always been peculiar difficulties in the control of this disease, but notable advances have been made under our present Health Officer. This Society takes pride in the fact that it was a committee composed of its members which secured the appointment of Dr. George C. Ruhland as Health Officer of Washington. Under his régime the anti-tuberculosis work has become well organized in a separate department, the reporting of cases of the disease is highly effective, and the segregation and treatment of cases are well controlled. Already the effects of these efforts are becoming apparent in the production of a notable decrease in the incidence of the disease in our community.

Important events in the control of tuberculosis in the District in recent years include the following:—

1. Opening of the Children's Unit at the Glenn Dale Hospital in 1933.
2. Report of the Subcommittee on Tuberculosis of the Medical Society of the District of Columbia in 1934. This Subcommittee was composed of Drs. John Minor, W. D. Tewksbury, Charles R. L. Halley and Preston A. McLendon.
3. First large mass survey under the Health Department, a W. P. A. project, when 12,500 X-ray films were taken, in 1935.
4. Formation in the Health Department of a separate Bureau for Tuberculosis, as distinct from the Bureau of Communicable Diseases, in 1936.

Since the formation of the separate Bureau in 1936, with Dr. A. Barklie Coulter as Director, the death rate from tuberculosis in the District of Columbia per 100,000 population has decreased from 107.0 to 76.9 in 1941. A notable increase has taken place during that time in cases of tuberculosis reported to the Health Department, from 1,300 in 1936 to 1,986 in 1941. Intensive follow-up service, both of known patients and their contacts who come under clinic supervision has been organized, and close working relationship with private physicians by which their patients are speedily hospitalized and contacts examined either by private laboratories or by the Health Department has been instituted. At present all positive or suspected cases are referred to the Health Department and private cases sent back to their physician with report.

In many phases of this never-ending campaign the Medical Society and its individual members have been almost constantly engaged. Its members have been advisers and consultants to the Health Department and to the District of Columbia Tuberculosis Association. Its Public Health and other committees have assisted in educating the public in methods of tuberculosis control through the press and over the radio and whenever necessary has supported legislation before committees of Congress.

The education of the public in matters pertaining to health has long been considered a duty by the organized medical profession. Since about the year 1930 this Society has been very active in this respect. Beginning with the year 1931 health talks over local radio stations were sponsored by the Society. In the past few years the Society has presented programs on two stations and for three months last winter sponsored a nationwide broadcast over the Mutual Broadcasting System. In addition to this the Society has arranged many public lectures and is constantly providing the press with information on health matters.

Since the Society engaged a full-time Executive Secretary, Mr. Theodore Wiprud, in 1938, its work has been more completely organized, its service to the medical profession and the community has been greatly expanded, and its relations to the public have been much improved. Worthy of prominent mention in this connection is the service provided by the Medical Bureau, a 24-hour telephone exchange maintained by the Society, which has a classified list of physicians available to the public. It has been of great value during this time of rapid expansion of the Capital with new families coming to Washington and needing medical advice and treatment. In 1941 the Bureau received 3,355 requests for names of physicians and in the first 11 months of 1942, 8,439 similar calls were received. Government departments have also used the Bureau and personnel directors have broadcast information about its services to thousands of employees.

Since about the year 1930 this Society has given particular attention to the social trends in medicine and in some of its aspects has been a pioneer. It was almost entirely through its efforts that the Medical-Dental Service Bureau and the Central Admitting Bureau for Hospitals were established. They have become the Health Security Administration, which administers Community Chest funds allotted to the hospitalization of those unable to pay for full hospital care.

The Society also helped to establish Group Hospitalization, Inc. and through the advice of its members on the Board of Directors has constantly emphasized the medical point of view in that organization. Due to such advice and to administration of the affairs of the corporation by an able and devoted President, Mr. Joseph Himes, an enlightened Board, and a very efficient Director, Mr. E. J. Henryson, Group Hospitalization, Inc. has attained a notable success. It has been free from many of the difficulties which similar organizations in other communities have experienced and has rendered a great service to the community.

Mention should be made of the plan called "Mutual Health Service" which was unreservedly and unanimously adopted by the Society after prolonged study and investigation. This plan could not be put into operation because of lack of interest on the part of the public, but it was a wise and forward-looking project. This plan, perhaps with some modification, and if practicable combined with Group Hospitalization, Inc., may be the solution to the problem of prepayment for medical care. With its wise provision for free choice of physician it may very well form the basis for operation of any plan of compulsory health insurance which might in the future be established.

This Society believes that it would fail in its duty to the people of this great city did it not continuously represent the medical viewpoint in the social advances which are inevitable and which the Society welcomes.

Mention must be made of the efforts of the Society since its very foundation to assist in the medical education of its own members and of physicians in this and surrounding communities who attend its meetings. The papers presented to the Society by its own members have been consistently of high quality, and back through the years many of the most famous names in American medicine are on its programs. In March and April, 1895, for instance, the Society was addressed successively by Surgeon General George M. Sternberg, Dr. Charles Wardell Stiles, Dr. William Osler, Major Walter Reed and Dr. Abraham Jacobi. In 1903 and 1904 appear the names of Col. William C. Gorgas, Dr. Harvey Wiley, Dr. John B. Murphy, Dr. W. W. Keen, Dr. J. H. Musser and Dr. W. F. Grenfell of Labrador. Indeed, the names on our programs are almost a roster of all the famous names in American medicine from Philip Syng Physick of Philadelphia and John Collins Warren of Boston down to the most able teachers and research workers of the present day who have presented their work either before the regular meetings of the Society or at the Annual Scientific Assembly. The Society has thus made it possible for the doctors of this community to keep abreast of the best in medical theory and practice.

Another phase of the work of the Medical Society which has benefited the public immeasurably has been its part in the licensure of physicians. It is not generally known that for many years following the granting of our Charter in 1819 it was the duty of a committee appointed by the Medical Society to license physicians. This was in effect until June 3, 1896, when a Medical Practice Act sponsored by the Medical Society was passed by Congress, which created a Board of Medical Supervisors for licensure of physicians.

There was a very important provision in the act of 1896 for which the Medical Society of the District of Columbia was largely responsible. Prior to that time the only control over midwives in the District was a regulation which required them to register at the Health Office. The law did not prescribe the conditions precedent to registration and by custom nothing more was required than certificates from two or more physicians. Physicians themselves registered in those days on the basis of any diploma conferring the degree of doctor of medicine from any school regardless of its character. It can thus be seen that there was virtually no control over the practice of midwives. The Medical Practice Act of 1896 was drafted by a committee of the Medical Society of the District of Columbia and contained a section which made it unlawful for anyone after the date of the enactment of that legislation to begin the practice of midwifery in the District unless she had been examined and found qualified and duly licensed by the Board of Medical Supervisors. This was probably the first law enacted in the United States requiring midwives to be examined and found qualified before they were licensed to practice.

A notable service has been performed by the Society in recent years in the interests of maternal welfare. Pursuant to a suggestion of the Washington Gynecological Society the District Medical Society set up in 1937 a joint committee with the Gynecological Society which carried out negotiations resulting in establishment of an Obstetrical Board. These negotiations were chiefly with the Children's Bureau of the United States Department of Labor and the Bureau of Maternal and Child Welfare of the District Health Department. The purpose of the Board is to make a continuing study of all maternal deaths in the District, as they occur, to determine the cause of death, its relationship to pregnancy, and whether it could be considered preventable. The Board began its study on June 1, 1937 and has continued it to the present time. During this period the maternal mortality rate in the District has declined about 55 per cent. No small part of the decline is attributable directly or indirectly to the activities of the Obstetrical Board. The Society records throughout all this endeavor the unfailing cooperation of the agencies above mentioned in the Federal and District governments.

The law of 1896 remained in effect until 1929 when the present Healing Arts Practice Act was enacted. This law requires examination in the basic sciences of everyone who is to be given a license to practice the Healing Art in any of its branches in the District of Columbia. It is a great contribution to the welfare of the people of Washington, and we owe it very largely to the leadership of a single member of the Society, Dr. Joseph S. Wall, with the assistance of a few co-workers, prominent among whom was Dr. Edgar P. Copeland.

Much of interest to the members of our Medical Society could be added to this sketch if there were space to relate the many contributions that have been made to the activities and welfare of the Society by many other members whose names could not be included in so brief an account. During the middle and latter years of the last century the names of two leaders recur frequently in the records of the Society, those of J. M. Toner and S. C. Busey. Up to the time of their deaths in the early years of this century both of these men were constantly active in the affairs of the Medical Society and in all of its efforts to improve and protect the health of the community. One would like especially to tell of the work of E. Y. Davidson in furnishing the leadership which resulted in the erection of the Medical Society's own building and of the honors which have come to such members as L. H. Reichelderfer, who in recent years was an able Commissioner of the District of Columbia, and William Gerry Morgan, who was President of the American Medical Association.

We must conclude these historical notes by a brief reference to the work of the Medical Society in the present war. When the war is over this history should be written in detail, but here we can give only the briefest summary. Beginning with the creation of the Committee on Medical Resources, which later became the Committee on Military Affairs, practically every member of the Medical Society has been involved in some capacity in the war effort. The following is a brief summary of what the Society has accomplished:

1. Since October 1940, approximately 250 physicians have been appointed local examiners. An additional 150 in the various specialties have served on Medical Advisory Boards. Upon request of the Society's Committee on Military Affairs the Washington hospitals made available their clinic facilities and their nursing, clinical and laboratory personnel for examination of selectees. The hospitals participating are Emergency, Garfield, Georgetown, Providence, Sibley and Freedmen's. Up to August 16, 1942, 22 months after the Selective Service System was placed in operation, 10,984 selectees had been examined by participating physicians.

2. Upon the request of National Headquarters of the Selective Service System, the Medical Society made a study of the costs of rehabilitating selectees rejected for the military service in the District of Columbia. The report on this study is published in the February 1942 number of the *Medical Annals of the District of Columbia*, the journal published monthly by this Society.

3. The Society aided in the organization of the Emergency Medical Service for Civilian Defense in the District of Columbia. Dr. John A. Reed, a member of the Society, was appointed Chief Medical Officer. Every physician in Washington is enrolled under Dr. Reed in the Emergency Medical Service.

4. With the approval of the Society its Committee on Military Affairs was appointed the Procurement and Assignment Committee for the District of Columbia. Dr. F. X. McGovern was appointed State Chairman by Mr. McNutt. This committee under Dr. McGovern has done arduous and valuable service in procuring physicians for the armed services and in keeping in civilian positions physicians who are essential for the medical work in the District.

5. A member of the Medical Society of the District of Columbia is State Medical Officer for Selective Service for the District of Columbia. Lieutenant Colonel A. C. Gray was appointed by the War Department to the above position. Through the entire period of the operation of the Selective Service Law he has rendered notable service as director of its medical phases in the District and especially in his coöperation with the Medical Society as a member of its Committee on Military Affairs. The excellence of his work is attested by his recent promotion to the rank of Colonel.

In addition to all of the above important work there is still the most important of all to mention, that is, the large number of physicians who have gone, many of them at great sacrifice, into the armed services. Some have already given their lives in their country's service and others have distinguished themselves and reflected honor upon our Society by valorous conduct in the presence of the enemy. We pay tribute to all of them.

As we look back upon a century and a quarter of our history we can view with justifiable pride the achievements of our Society. Our mistakes have been of the head and not of the heart, because we have always been guided by the noble and altruistic ideals of our great profession. The Society asks of the future only that it may continue to represent a free medical profession in the service of this community.

Use albumin from blood plasma as substitute in transfusions. The discovery that the albumin contained in human plasma can be injected or transfused in a more highly concentrated form than the whole plasma is said by *The Journal of the American Medical Association* in its November 28, 1942 issue to provide a new method of great effectiveness for combating shock from injuries, hemorrhage and burns.

The new method is particularly important because it greatly facilitates transfusions to the wounded on the field of battle, thus helping to reduce the mortality rate from shock. According to a recent statement of the Surgeon General of the Navy, this was demonstrated a short time ago in battles in the South Pacific. One fifth as much human serum albumin is required for a transfusion as is needed when the entire plasma is used, 100 c.c. of albumin in solution being equivalent to approximately 500 c.c. of plasma. This not only facilitates shipping and storage but also administration.

The new method resulted from research projects sponsored by the Bureau of Medicine and Surgery of the Navy Department. Three reports on the investigations are contained in the October, 1942 issue of the *U. S. Naval Medical Bulletin.*

Commenting on these three reports *The Journal* explains that "albumin makes up about 62 per cent of the total protein of human plasma and is chemically the most soluble and most stable of the plasma proteins."

The Journal says that one of the reports presents evidence that human albumin is safe and effective under clinical conditions, based on the effects noted in 200 instances in which it was given.

The types of cases treated were classified as shock due to trauma or injury, hemorrhage, operation and infection, early and late burns and other conditions.

"The administration of human serum albumin," *The Journal* says, "may be considered an established procedure on the basis of this work and the work which has preceded it."

One of the other reports, *The Journal* explains, "describes the standard Army-Navy package of human serum albumin (concentrated). For this purpose a 'unit' of human serum albumin is defined as 25 Gm. This is . . . equivalent to approximately 500 c.c. of citrated plasma. In the standard package the 25 Gm. is dissolved in 100 c.c. of a specially prepared solution in which concentration it is stable for temperatures up to 50 C. The solution is contained in a double ended glass ampule, rubber stoppered at each end. Each ampule together with the apparatus for its administration is enclosed in a metal can. Three of these cans, containing the . . . equivalent of 1,500 c.c. of citrated plasma, are packaged in a fiber board box."

The Journal says that because of this and previous work a new method of great effectiveness has been made available for combating shock on the field of battle and that "furthermore, this series of investigations may be recognized as a demonstration of coöperative research at its best."

A BRIEF OUTLINE OF PRESENT-DAY CONCEPTS OF RHEUMATIC FEVER

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BECAUSE of the common occurrence of rheumatic fever and because the clinical manifestations of rheumatic fever are not sufficiently well known, it has seemed advisable to present a brief summary of our knowledge of the disease. Such a presentation is timely because of the recent inauguration of a rheumatic fever program in the District of Columbia with the establishment of a 44-bed unit at Gallinger Municipal Hospital to furnish long-time care for patients with this disease.

That rheumatic fever is a public health problem ranking in importance with tuberculosis and syphilis is now recognized. Swift[1] has pointed out that rheumatic fever is a far more important problem than poliomyelitis, and has estimated that there are 1,100,000 persons with rheumatic heart disease in the United States. Hubbard[2] has indicated that there are about 900 new cases of rheumatic fever a year in Boston (population 750,000). A conservative estimate of new cases per year in the District of Columbia is 300.

Rheumatic fever spares no stratum of society. It is a disease found chiefly, however, among those living in crowded quarters and whose nutrition is, as a rule, poor. Epidemics have occurred in pediatric institutions, in army camps of World War I, and in at least one training center of World War II. Rheumatic fever is apt to occur in more than one member of a family.

The first attack of rheumatic fever generally occurs between the ages of 7 and 9 years. First attacks of rheumatic fever have been reported in newborn infants, and also in patients over 60 years of age. The sexes are about equally affected. At least 1 recurrence of rheumatic fever occurs in 80 per cent of the patients.

Per se, race does not play a role, but it appears that in the District of Columbia rheumatic fever is more common in the negro population than in the white, probably because of differences in the relative living conditions.

The etiology of rheumatic fever is unknown. The infection is closely related to hemolytic streptococcal infection of the throat and elsewhere. In fact, it infrequently occurs in patients who have not had a preceding hemolytic streptococcal infection (sore throat, scarlet fever).

Clinical Aspects of Rheumatic Fever. Migratory joint pain with redness and swelling involving the large joints is characteristic, but this occurs in probably no more than 50 per cent of the cases. Chorea occurs at one time or another in about 50 per cent of the patients. Chorea may affect only one half of the body and be of the so-called limp variety. It may be a lone manifestation of the existing rheumatic fever; it is usually evidence of mild rheumatic fever. Subcutaneous nodules are frequently overlooked, but they appear in 10 per cent of patients with rheumatic fever. In order of frequency, the nodules are found over the elbows, knees, spine, back of the head, hands and ankles. They vary from the size of a pinhead to that of a pea. Rheumatic nodules are found in 60 per cent of those who die with rheumatic fever. Erythema marginatum occurs in about 10 per cent of the patients. This rash consists of flat, occasionally raised, pink lesions with pale, sometimes green-brown centers, found over the inner surface of the arms and in the axilla, over the back, chest or abdomen. The rash may last only an hour or two. It may rarely itch.

The initial appearance in a child or a young person of a loud systolic murmur at the cardiac apex with or without diastolic murmurs, or of a diastolic murmur along the left sternal margin (aortic regurgitation) usually means active rheumatic fever.

In patients with rheumatic heart disease up to 30 years of age, congestive failure almost always means active rheumatic infection. The failure is usually not due in these patients to mechanical cardiac strain. Congestive failure in children with heart disease and rheumatic fever is characterized by the following clinical syndrome:[3] enlargement of the liver; facial edema, often out of proportion to the general edema; diastolic gallop rhythm in the 2nd and 3d left interspaces at the sternal margin; occasionally marked right axis deviation of the electrocardiogram; and the absence of orthopnea and of pulmonary râles.

When friction rubs over the heart or lungs are found in children or adolescents, and pneumonia is not the cause, rheumatic fever is likely to be present.

In the absence of diphtheria or a digitalis effect, a P-R interval in the electrocardiogram of more than 0.17 second in young children and of 0.2 second in adolescents is presumptive evidence of active rheumatic fever.

There are other signs and symptoms less characteristic of rheumatic fever than those already described. Often the most severe rheumatic fever is manifested at first in no other way than by ill-defined poor health manifested by malaise, pallor, vague pains, poor appetite, and mild anemia, with or without fever. Epistaxis occasionally occurs but is never the only important symptom. Pain in the precordium or abdomen is found in 10 to 15 per cent of patients with other evidences of active rheumatic fever. The pain has no special characteristics, and rarely occurs as the chief or only sign of the infection. When it occurs as the initial sign of the infection, other symptoms or signs appear shortly. Heart rates of 120 to 140 accompany severe rheumatic infection, but rheumatic fever may be and frequently is present without increased heart rate. Since the heart rate in children and young adults is very labile, the heart rate is generally not helpful in diagnosis and is not a reliable sign of the presence or absence of active rheumatic fever. "Growing pains" (pain behind the knees) occasionally occur in children with rheumatic infection but are seldom due to rheumatic fever.

The white blood cell count generally is elevated in rheumatic fever (10,000 to 25,000) with predominance of polymorphonuclears during the early weeks. Mild anemia is common, but rarely is there severe anemia. Prolongation of the P-R interval of the electrocardiogram is evident in about 40 per cent of patients. This may persist for many weeks or months and should be considered as evidence of continued active infection. The electric axis swings to the right in most children with congestive heart failure due to rheumatic fever, and in some of this group there may be marked right axis deviation. An increased sedimentation rate is evidence of continued infection after other signs and symptoms have disappeared, and as a rule is usually the last finding to return to normal. This test is not specific for rheumatic fever, however, since any infection or tissue destruction brings about an increased sedimentation rate.

The outlook for a patient with rheumatic fever depends upon the severity of the attack. Seventy-five per cent of those with congestive failure die during the given attack. Twenty-five per cent of patients die within 10 years of the initial rheumatic infection, the majority of them from recurrent rheumatic fever, a few of them from bacterial endocarditis. Of the remaining 75 per cent, about one-third will have no clinical evidence of heart disease; of the rest, all of whom have heart disease, a very few are limited by the cardiac disability.

The majority of children and young people with rheumatic heart disease can and should live normal or nearly normal lives. The greatest hazard is recurrent rheumatic fever, and this danger is greatest until the patients are more than 30 years of age. Then, particularly in those with large hearts, there is somewhat greater danger from mechanical difficulty than from recurrent infection. In general, the patients who are left with large hearts have the poorest outlook at any age. Subacute bacterial endocarditis is a cause of death in 10 to 15 per cent of patients with rheumatic heart disease after the age of 20.

There are no specific measures of treatment. Bed rest continued until all evidences of infection have disappeared is the most important treatment. This means. as a rule, until all laboratory tests have been normal for at least a month, particularly the sedimentation rate. The avoidance of exposure to respiratory infections and in particular to sore throats is also of major importance. This means limiting visits of relatives and friends to an absolute minimum and the exclusion of anyone who has had a cold or a sore throat within 2 weeks. It is important that patients who are in bed for a long period of time because of rheumatic fever keep up with their schooling. They should have organized occupational and recreational therapy. The diet should be of high caloric, high vitamin content. Since the prescribed measures can seldom be carried out at home, patients with rheumatic fever should be hospitalized, preferably in a special hospital or hospital unit where they can be given sanatorial care by trained medical, nursing, and allied personnel.*

Aspirin should be used for joint pain, persistent fever, pericarditis or pleuritis. It is seldom necessary to give more than 90 grains in 24 hours. This drug affords only symptomatic relief; occasionally it is useful as a therapeutic test.

Congestive failure in patients with rheumatic fever is, as a rule, evidence of active rheumatic myocarditis, and in treatment the theobromine derivatives, theocalcin or thesodate, are most useful, given in the doses of 1 gram 3 times a day.[4] Digitalis (1 cat unit per 10 pounds of body weight) may be helpful in those patients who do not respond to the theobromine. Digitalis may be harmful in some patients since it has a peculiar tendency to cause auricular fibrillation in them. The mercurial diuretics are indicated in those patients whose congestive phenomena cannot be controlled by other measures.

The sulfonamides have no therapeutic value in active rheumatic fever and may do harm. However, perhaps the most significant advance in the prevention of rheumatic fever concerns the prophylactic use of sulfanilamide given in daily doses of 10 to 15 grains during the winter and early spring months.[5, 6, 7] Sulfanilamide given in this way has prevented the occurrence of hemolytic streptococcal infection of the throat and apparently thereby has prevented recurrences of rheumatic fever. Also, it is important to give patients who have rheumatic heart disease sulfanilamide or sulfadiazine, 15 grains 3 times a day, for 2 days prior to tooth extraction or tonsillectomy to prevent, if possible, the occurrence of subacute bacterial endocarditis, since it has been shown that immediately following the removal of teeth there occurs a transient bacteremia.[8]

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* Such care is now provided in the District of Columbia as part of the Services for Handicapped Children under the auspices of the District of Columbia Health Department in a 44-bed unit at Gallinger Municipal Hospital.

SOME WARTIME OBSTETRICAL PROBLEMS*

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AT THE present time the problems of caring for obstetrical patients in Washington during air raids or enemy attacks by land or water seem to belong to a future so distant, and to circumstances so improbable, that it is difficult to realize their importance. What has happened in other countries may happen here, and it may be of interest to consider what has been done elsewhere in the interests of pregnant, parturient and puerperal women.

Most of the available published accounts of obstetrical activities during wartime come from England, and while many of the English problems differ from ours, their methods of dealing with some situations may suggest ideas which can be adapted to our needs.

In the main, the English system[1] of protecting prospective mothers revolves around the policy of evacuating women at the beginning of the last month of pregnancy from areas likely to be bombed to quarters in nearby rural districts. These quarters are of three types, antenatal hostels, maternity homes, and postnatal hostels, which in most cases are large country estates altered to suit obstetrical requirements.

At the antenatal hostel, which is staffed by a matron and a cook, most of the housework is done by the patients. At the onset of labor, or with the development of complications, patients are removed to a nearby maternity home. This is a house in which have been provided hospital facilities, such as delivery rooms, sterilizing rooms, nurseries and from 20 to 60 beds. Here delivery occurs and the mother remains for 12 or 14 days. The staff consists of resident physicians and midwives. When discharged from a maternity home, mother and baby go to a postnatal hostel for convalescent care, where they remain for from 2 to 4 weeks.

An experienced obstetrician, who usually makes his headquarters at one of the larger maternity homes, supervises the work done at several homes and is available for consultation at all of them.

In the beginning, because of the cost of altering and maintaining large houses for a purpose, the value of which had not been appreciated, expectant and postpartum mothers were billeted in private homes in the neighborhood of the maternity homes, and frequently were delivered there. For many reasons this domiciliary care was unsatisfactory and has been abandoned as rapidly as better accommodations have been secured.

In order that continuity may be maintained in the treatment of indigent and near-indigent patients, these outlying institutions are, when possible, under the control of city hospitals, in the clinics of which the women have received their early prenatal care. When the patient goes from the city to a country hostel or maternity home, she takes with her the history of her case, is attended by members of the staff of the hospital from which she comes, and carries her delivery and postpartum records back to the hospital before she is discharged.

In this country, where there are not so many large country estates adjacent to cities as there apparently are in England, this system could be modified by utilizing small-town hotels, school houses and country clubs as hostels and maternity homes, and staffing them with obstetrically trained nurses instead of midwives.

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* Read before the Goerge Washington University Medical Society, May 16, 1942.

Evacuation of pregnant women[2] from bombed or bomb-threatened areas is entirely voluntary, and it is interesting to note that the number of cases in which evacuation was requested varied markedly with the imminence or incidence of air raids. As the war has gone on, there apparently has been developed a loss of fear or the acceptance of the inevitable or, perhaps, merely apathy. For several months after war was declared in September 1939, the applications for evacuation were relatively few. After the fall of France in June 1940, the number began to increase and rose rapidly when heavy bombing was first experienced, until only 27 per cent of the usual number of women were delivered in London. By April 1941, however, that number had risen to 95 per cent. This fact gives rise to speculation as to whether, if the system of evacuation is desirable, it should not be made compulsory.

In certain rural communities[3] where it is the custom for the not too complicated cases to be delivered in their own homes, emergency consultation service by specialists from the nearest city hospital has been organized. Complete sets of equipment to cope with various situations are kept in readiness at the hospital. When a midwife or practitioner in the country needs help, a telephone call brings an obstetrician and supplies. One writer suggests that the automobile be a powerful, comfortable car in order that vibration, fatiguing to the consultant, may be minimized. A more important suggestion is that the chauffeur be a group IV individual in order that he may, when necessary, act as a blood donor.

Early in the war,[4] when labor commenced in an air raid shelter, the patients were attended by doctors or midwives who were under contract with local authorities, and certain air raid workers were trained in the care of obstetrical emergencies. This procedure[5] now has been discontinued, and patients in labor are regarded as civilian casualties and transported, in spite of bombing, to hospitals or to aid posts where doctors are in attendance.

On December 7, 1941, at Honolulu,[6] Americans for the first time were faced with the problem of caring for obstetrical patients during enemy attack. Fortunately, plans for such an eventuality already had been formulated, and it is a credit to the foresight of those who prepared the program that it was carried out with complete success.

Since conditions in Honolulu closely approximate those of the average city on the mainland, it is appropriate to draw rather fully from a report recently published which describes the procedures there carried out.

Obstetricians were assigned to maternity hospital posts and were relieved of the necessity for caring for other casualties. Obstetrical facilities were kept intact in spite of extra demands on other departments of hospitals. Teams of pediatricians and nurses were provided with apparatus and equipment for the care of infants born before reaching a hospital.

As in Washington, obstetrical facilities were already overcrowded because of a rapid influx of defense workers and military personnel. Patients were forewarned that, while the hospitals would provide for the actual deliveries, their stay in the hospital would be short and preparations should be made for postpartum care at home.

Obstetricians and pediatricians were available for the care of patients of general practitioners whose services were required by other disaster activities. Home delivery packs were immediately available for the use of doctors and nurses in case of emergency.

A serious problem was the transportation of women in labor to the hospitals through the blacked-out streets. In this case, taxicabs and police patrol cars were utilized. Pregnant women were warned by physicians, press and radio that any signs of impending labor should be reported to their doctor before nightfall and that, if possible, they should be sent to the hospital before dark.

In view of reports from London, it was expected that many women would abort or go into premature labor. Surprisingly, the incidence of such cases was scarcely above normal. Eclamptogenic toxemia, however, was much more frequent than usual.

Although in this country protection from gas attacks has not yet been provided, it may at some time be necessary to equip civilians with masks. If and when that time comes, it will be realized that the adult mask, even though modified in size, will not be adaptable to a newborn baby. The English mask[7] for children under 2 years of age, as it has been developed, now consists of a hood of impervious fabric fitted with a large window of cellulose acetate. The hood encloses the head, shoulders and arms and is closed around the waist with a draw-tape. The baby inside can thus move its arms and put its hand to its mouth, an important point in keeping it quiet. The hood is surrounded by and fastened to a light metal frame which is lengthened on the under side and fitted with an adjustable tailpiece as a support and protection for the child's back. The tailpiece is turned up at the end to form a seat, which prevents the child from slipping out of the hood. Because the baby's respiratory efforts may not be sufficiently powerful to draw air through the container which removes the poison gas, a rubber bellows is employed to force air into the hood. The space within the hood contains sufficient air to allow pumping to be intermittent.

Locally,[8] the problem of transporting and caring for pregnant women during blackouts is included in the general plan for the medical care of the civilian population. In Washington 1,000 emergency beds can be made available in addition to the present hospital accommodations. In adjacent Maryland counties more than a dozen locations have been designated as receiving stations in case of an overflow. In round numbers, 360 taxicabs, 40 ambulances, 20 trucks and 200 cars of the Motor Corps of the American Red Cross and Women's Volunteer Service are available for transportation. These conveyances are organized as units, each of which is assigned to a hospital.

In case of any medical need, including the moving of obstetrical patients, only a call to a hospital is necessary to procure transportation.

One of the first questions which comes to the mind of an obstetrician is the best method of treating gunshot wounds of the abdomen and uterus during pregnancy. The occurrence of such wounds appears to be exceedingly rare; so rare, indeed, that Bost[9], in a recent search of the literature, was able to find only 10 cases which have been reported in the last 30 years. Of these, 2 were war wounds, while the others were incidents of civil life.

At first thought it might seem that pregnancy would add to the hazard of a perforating wound of the abdomen. Quite the contrary are the facts as shown by this small series of cases. Of the 10 cases, only 1 was fatal to the mother, and in only 3 cases were there visceral injuries. The pregnant uterus, of course, had raised the intestines out of harm's way, and in several cases the fetus had stopped the bullet before it could penetrate the wall of the uterus opposite the site of entrance.

In 5 cases the punctures were closed and cesarean section was performed. Hysterectomy was done twice, and removal of the baby and suture of the wound sufficed once. Two patients delivered normally after closure of the perforations, 3 days and 17 days respectively after the accident. The 1 death was probably due to secondary hemorrhage following cesarean section.

Apparently, therefore, the chief concern of the physician is in transporting pregnant and

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TREATMENT OF PUERPERAL INFECTION*

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NOWADAYS, the puerperium, aside from afterpains and minor disturbances of urination and of lactation, is usually an uneventful convalescence. When the soreness is gone from the muscles and joints and the body functions are ordered, which require about 72 hours, the patient should feel as well as she ever did. Two dangers, however, are ever present: infection of the genitalia and infection of the breasts.

Puerperal infection is a general term embracing all the conditions originating from infection of the genital tract at any point of its extent. I shall omit, for the sake of brevity, much of the very interesting historical background of these conditions except mention of the work of Oliver Wendell Holmes, and particularly of Semmelweis, which represent the basis of our present understanding of childbed fever. In Holmes' paper, entitled "The Contagiousness of Puerperal Fever" written in 1843, he outlined certain rules of prophylaxis which could scarcely be improved upon today. They were based on his definite belief in the contagiousness of the disease. As is so often the case, the presentation of such revolutionary concepts aroused a storm of bitter opposition from recognized authorities of the day, particularly Hodge and Meigs. Unfortunately, Holmes was not a crusader in spirit and it remained for Semmelweis, a young assistant in the clinic in Vienna, to advance the theories which were based on his own original observations. He noticed that the division of the clinic which was used for the instruction of midwives had a 2.7 per cent mortality from puerperal fever, while that for the doctors was 11.4 per cent. The doctors and medical students performed autopsies, the midwives did not. His remedy was washing of the hands, cleaning the fingernails and soaking in chloride of lime solution. The result was dazzling, and the mortality rate in his division sank to 1.27 per cent, lower than the midwives' clinic. The opposition in Europe to his beliefs was violent. He fought, tooth and nail, to convert the profession to his new understanding of the disease for the balance of his life. But it was not until years later, after the work of Pasteur and Lister, that the magnitude of his discovery was finally apparent.

Etiologically, today, we are familiar with most of the well-known factors, sometimes so familiar that we are apt to overlook them in view of some of the liberties that are occasionally taken. The most important recently discovered etiologic factor is that of air-borne infection. It has been known for many years that dust particles and droplets of sputum, saliva, etc. may harbor and spread infection, but only very recently are real efforts being made to control this method of spread.

Bacteriologically, the most important organisms involved are various members of the beta hemolytic streptococcus group, the staphylococcus, and B. coli. Less frequent are the gonococcus, the pneumococcus, and the gas bacillus. The streptococcus is the outstanding offender in the more serious cases, but seldom is the infection a pure one. Usually two or more bacteria may be recovered, but one is usually predominant. Based on figures from Queen Charlotte's Hospital in London, Colebrook states that of 100 cases of puerperal fever, the condition in about 40 is due to the hemolytic streptococcus and in the other 60 to different organisms.

Before treatment can be intelligently established there are certain questions that must be answered:

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* Presented at the Fourteenth Annual Scientific Assembly of the Society, September 30, 1942.

1. What is the anatomic location of the infection?
2. In what direction is it spreading, and how far?
3. Is the infection more general than local, or more local than general?
4. What is the causative organism?
5. Is there anything in the uterus?

In no disease does prophylaxis play a more important role. Here, preëminently, is illustrated the wisdom of the proverbial ounce of prevention.

Much in a preventive line can be done during pregnancy to get the woman into perfect condition for the risks of labor. Local diseases, such as vulvitis, cervicitis, otitis media and sinusitis, should be cleared up well before labor supervenes if possible. Appropriate treatment for such general diseases as diabetes mellitus, syphilis, heart disease, etc. is of course obvious, but sometimes neglected. Especially is it important to clear up secondary anemia, which is common in the last trimester. If the hemoglobin is below 60 per cent the patient should be transfused before labor.

In labor the number of internal examinations should be limited to an irreducible minimum. The conduct of labor should be controlled, so far as possible, by external and rectal examination. During labor the woman's reserves should be protected by getting her sufficient sleep, rest, food and liquids. Obstetric shock may follow a protracted labor, one in which exhaustion, starvation and dehydration combine to reduce resistance, and sepsis may be lighted up. Just as important is the prevention of bleeding during labor.

In recognition of the frequency of air-borne infections and of the corollary that the source of many of these is the air passages of the attendants, masking of the nose and mouth should be insisted upon. In most modern institutions this rule is among the regulations, but too often it is not abided by. For the same reason, if the patient should have an upper respiratory infection, she should also be masked. Colebrook aptly warns of the danger that less care may be taken with the antiseptic ritual since the introduction of the sulfonamides.

In the second stage, early episiotomy often prevents the occurrence of irregular, ragged tears. Many of us are often prone to use low forceps before the head has "ironed out" the pelvic floor and perineum. On the other hand, allowing the head to pound on a rigid pelvic floor for hours frequently harms both the mother and child.

The third stage should be conducted as physiologically as possible. Great care should be taken to obtain the placenta and membranes complete, as retained portions of either serve as an excellent culture medium for organisms that happen to be present. If a piece of placenta is missing it should be removed manually at the time. If the major portion of the membranes is retained, this also should be removed. It is now customary to give a routine dose of some oxytocic to insure the uterus remaining firmly contracted for several hours after delivery. A firm uterus is an excellent barrier against bacterial invasion.

Repair of all lacerations of the perineum and vagina is important and if there is any reason to suspect laceration of the cervix, this should be inspected and sutured if necessary.

When careful examination has excluded all other causes for the illness and a diagnosis of puerperal infection is made, the woman should be isolated in the lightest, airiest room available and every attempt made to put her at complete mental and physical rest. Her bed is placed in the Fowler position. General supportive treatment provides adequate diet, elimination, relief of pain, etc. The use of ergot for several days helps in keeping the uterus contracted. Culture of the lochia, taken from the vagina, should be sent for bacteriologic analysis. Developments may then be awaited. The days of active local treatment, as with intrauterine douches, strong antiseptics, and curettage, are gone. The only permissible indication for local treatment should be the use of iodoform packing in cases of intractable uterine bleeding.

As to specific treatment, the results of the use of vaccines, sera, and foreign protein therapy, on the whole have been quite disappointing. The use of frequently repeated transfusions of 200 or 300 c.c. of blood every 2 or 3 days is now well established and of real benefit. Use of blood from a donor who has recovered from a similar infection is of even greater benefit when available.

It is in the field of chemotherapy that the most important recent advances have been made. Colebrook's report in 1936 on the use of Prontosil in 38 cases of puerperal hemolytic streptococcal infection with only 3 deaths was the forerunner of the widespread employment of the sulfonamide drugs in this type of infection, as well as numerous others. Probably the most brilliant results have been obtained with the use of sulfanilamide for patients infected with the hemolytic streptococcus. In many of these there existed an actual bacteremia, a condition formerly almost always fatal. What a hopeless feeling it was to read the laboratory report, "blood culture positive for hemolytic streptococcus," practically a death sentence. But now such a report on an ill patient, by contrast, is almost reassuring with sulfanilamide to fall back on. Particularly if the streptococcus is of the beta group is our drug more effective. The maximum initial dose should be given at once, particularly if the patient is acutely ill. This should be followed by 1 gram every 4 hours around the clock and continued until the temperature has been normal for 5 to 7 days. We seek to maintain a blood concentration of 10 mg. per cent. Then the dose is tapered off over several days.

If cultures reveal the staphylococcus or B. coli, sulfathiazole may give us better results than sulfanilamide. Newer members of this group of drugs are constantly being experimented with, and it is hoped that some of the more recently developed drugs will provide greater protection against types of infection than is now possible, and also that the toxicity will be reduced materially.

Occasional marked individual susceptibility to the toxic effects of various members of the sulfonamide group should give us real concern when administering these drugs. The toxic manifestations and the precautions to be observed in the course of therapy are well outlined in a recent article by Perrin H. Long and his associates. Since they are outstanding authorities on this subject, we can well afford to pay heed to the advice offered in some of the following quotations:

"Whenever possible, it is wise to utilize every available means of laboratory control in following patients who are receiving sulfanilamide or one of its derivatives. White blood cell counts, hemoglobin determinations and urinalysis should be done whenever circumstances permit. However, with the exception of acute leukopenia, all the toxic manifestations of these drugs which may occur in the first two weeks of therapy can be recognized by careful clinical observation, and the authors feel that no physician should hesitate to administer these drugs in therapeutically adequate amounts, provided he can see his patient at least once a day.

"At the time the physician visits the patient who is receiving one of these drugs he should inquire as to his symptoms, especially in respect to headache, body-aching or malaise, because these symptoms are often the precursors of many of the toxic reactions. In addition, the sclerae should be examined for the presence of jaundice, the mucous membranes for pallor, and the skin for evidences of rash. The temperature should be taken several times a day to detect whether drug fever is present, and particularly is this important after chills.

"No special precautions have to be observed in respect to the urine of patients who are receiving sulfanilamide, but it is highly important that the urine of patients taking sulfapyradine or sulfathiazole be measured daily. In this way it is possible to detect an oliguria which heralds an approaching anuria.

"Finally, one should always remember that if a patient has once had drug fever, rash, hepatitis, leukopenia, acute hemolytic anemia, diarrhea or purpura hemorrhagica in the course of therapy with sulfanilamide or its derivatives, he is likely to have a second, earlier and more severe toxic reaction if the drug is administered a second time. Therefore, it is highly important to determine whether or not a patient has previously had a toxic reaction in the course of therapy with one or another of these drugs. If he gives a history of such a toxic reaction, it is best to give a small test dose of the drug (0.3 Gm.) and observe the patient carefully for 12 hours before cautiously beginning the course of therapy. Patients who have had a toxic reaction caused by one of these drugs may have a similar reaction when another member of the sulfonamide group is prescribed."

If these precautions are borne in mind the likelihood of unfortunate results with sulfonamide therapy will be rare, and the advantages of this new addition to our armamentarium will be more fully realized.

Nail biting in general is form of immaturity, educator says. Nail biting in general is a form of immaturity, Albert L. Billig, Ed.D., Allentown, Pa., concludes from a ten year study of this habit as manifested by pupils in the public schools which he reports in *Hygeia, The Health Magazine* for December, 1942. "As the nail biter 'grows up' and accepts the tenet that discipline . . . is necessary and desirable in many instances as part of an orderly life, his need for nail biting disappears," he explains.

Mr. Billig says that the pupils studied during the first few years of his observations were from the elementary grades and that the incidence of nail biting among them was approximately 40 per cent. Among sophomore students in high school, whom he studied subsequently, approximately 30 per cent were active nail biters.

"During the course of the investigation," Mr. Billig observes, "the following . . . became apparent: Approximately two thirds of a normal population exhibit this form of behavior at some time of life; by the fifteenth year half of these nail biters have desisted. At least some of the nail biters use this habit as a means of dominating persons, such as parents, whom they would otherwise be unable to control. . . .

"An attempt was made to see if there was any difference between the amount of corporal punishment received by nail biters and that received by non-nail biters. The results seemed to warrant the assumption that there is a slight excess in the amount received by nail biters. . . . One of the findings was that the girls contributed slightly more nail biters than the boys for the grades four to six inclusive. . . . Most of the nail biters admitted that they knew this habit was bad. Many of the pupils claimed that they learned it from another nail biter."

Results obtained from quantitative scores of a standardized questionnaire did not indicate that nail biting was a symptom of neurosis, Mr. Billig declares, but they did indicate that the nail biters had a slightly lower average intelligence quotient than the non-nail biters.

Among the more intelligent pupils, he says, one or two applications of a bitter substance to the finger tips was adequate to discourage nail biting, but, he adds, "If this treatment of negative conditioning should fail to produce definite results by the third application, it is advisable to discontinue it; otherwise more harm than good will be done. The habit will be made still more stable."

Among high school students who were nail biters, Mr. Billig declares, "It became evident from their own introspection and on observation while they were biting their nails that nail biting took place largely while they were in a state of excitement. Most of them believed they were powerless to do anything toward stopping the habit. Their stock answer was, 'I am nervous.' The girls stated that the one form of entertainment which seemed most provocative of nail biting for them was motion pictures. At another time, among both boys and girls the two most provocative situations were said to be suspense and conflicting interests. The evidence gathered seems to indicate that in many cases this form of behavior can be traced to mothers, relatives or associates who bite their nails and from whom the children learn the habit. This explanation on the part of the child may of course be a form of rationalization. . . . The most desirable method for the amelioration of nail biting among high school sophomores was found to be a program of helping the pupils to develop an understanding of why they indulged in this form of behavior. . . ."

GERIATRICS IN WARTIME

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HEALTH is as essential to national strength as material resources of munitions, airplanes, oil or ships. Though this is universally recognized, thus far the chief concern has been with the younger and so-called "productive" segments of the population, and little or no attention has been paid to the specific health problems of the elderly. Serious consideration of the potentialities of preventive geriatrics is both pertinent and urgently desirable at this time, because (1) the rapidly shifting age distribution of the population is an important factor in the rising incidence of chronic disabling illness; (2) the increased technology of industrial and military activities has placed a premium upon thoroughly trained and experienced older personnel; and (3) lastly, because "key men" in all fields are almost invariably older.

Recently changes in population structure are profoundly significant. Life expectancy at birth has increased from about 47 to over 63 in the last 40 years. The rise in the percentage of elderly persons in the population has become acutely accelerated in the last decade. Data from the 1940 Census reveal that the median age of the population of this country increased from 26.4 years in 1930 to 28.9 years in 1940. This is an increase of 2.5 years of median age within a decade. The total population increased 7.2 per cent in the last 10 years; the increase in those 65 or more years old, however, was 35 per cent. There are now nearly 9,000,000 people over 65 in the United States. Such figures speak for themselves and clearly indicate the necessity for concentrated effort to control the common chronic, progressive, and disabling disorders which beset the elderly.

In the present emergency, when war production concerns the very survival of our way of life, the older worker acquires increasing importance. Experienced men are needed; the young men are going into the armed forces. Industry is beginning to realize its need for objective data as to the changes in capacities, limitations, and nonindustrial disease introduced by aging. Pertinent questions include such problems as proper placement, fatigue, criteria for the mensuration of physiologic age in contrast to chronologic age (in relation to both employment and retirement), the role of occupation in exacerbating chronic disease, and many more.

Wisdom is conditioned by age, for its development is dependent upon experience, in which time is a factor. Aging does not create critical judgment, but fosters its growth when intelligence exists in youth. It is because of trained judgment, special knowledge and experience that those leaders carrying the gravest responsibilities in planning and organizing the national resources into mobile strength are older men. The seniors in all professions, including medicine, are giving freely of their time, wisdom and strength. Much emphasis is placed upon the necessity for conservation and most effective utilization of material resources, but no organized effort whatever is being made toward the conservation of these individuals whose loss inevitably makes for serious derangement in organization and execution of essential activities. It is as though a fleet of fragile, wondrously specialized and invaluable mechanical units were assembled without thought of service to maintain their efficiency. The added stresses of emergency are added menaces to health.

Preventive medicine may be applied by the impersonal or "wholesale" approach or by personal or "retail" methods. Impersonal public health activities include the institution and control of modern sanitation, the enactment and enforcement of quarantine regulations, the control of atmospheric hazards, education concerning communicable diseases and improved nutrition, and, lastly, the application of mass immunization against certain infective diseases. These methods have contributed to a magnificent improvement in the health of our youth. But public health medicine is limited in its effectiveness almost solely to the prevention of disease due to exogenous infective or toxic agents. It is applicable only to relatively homogeneous groups in which a minimum of individualization is requisite. It is grossly inappropriate as an approach to preventive geriatrics.

As we age we each acquire a highly personal set of experiences and exposures to specific actions, infections and intoxications. Individuality, which may be defined as a composite of the intrinsic and inherited characteristics as modified by the personal and peculiar vicissitudes of existence, becomes increasingly divergent with aging. Furthermore, the commoner diseases of middle and later life are largely endogenous. They arise from within.

Normal aging introduces biologic changes. "Normal" is not a fixed point, but a series of variables which change with age. Structural, psychologic, biochemic and physiologic changes inherent in aging affect the practice of all phases of clinical medicine. Pediatrics made rapid strides forward only after it was recognized that the child is not merely "the little man," but presents characteristics peculiar to infancy and childhood. A similar focus of attention is necessary before notable advances are possible in geriatrics. Physiologic age does not necessarily parallel chronologic age. It may be greater or less. Furthermore, aging does not progress uniformly throughout the body. The changes of senescence are not all involutional. There are important compensatory increments in certain functional capacities. These highly variable and individual changes alter the defense mechanisms of the body and thus frequently distort the phenomena of disease.

Health mensuration is vastly more difficult than the diagnosis of symptom-producing disease. Health is more than the absence of disease. Health is relative and has distinctly quantitative attributes which involve reserve capacities. Detection of depletion of reserves, and thus the detection of disease in its asymtomatic incipiency, requires the highest type of diagnostic acumen and comprehensive thoroughness in clinical functional study.

Prophylactic geriatrics involves problems differing widely from those presented by younger age groups. The diseases of youth are usually exogenous, acute, self-limited, and have florid onsets so that early identification is relatively easy. In contrast, the disorders most frequent in the later decades include cardiovascular-renal diseases, arthritis, diabetes mellitus, gout, cancer, and certain syndromes of the climacteric. It is most significant that these all are endogenous, insidious, chronic and progressively disabling. Thus, early therapy is often neglected because of the absence of distress. With many of these diseases cure is beyond our present hope. The best therapy cannot "cure" hypertensive arterial disease, diabetes, gout, chronic arthritis, or arteriosclerosis of coronary or peripheral vessels. Control and retardation of progression are, however, feasible objectives. The earlier control measures are instituted, and the more highly individualized these measures are, the more effective is the therapy. Senescence and the changes associated therewith do not begin in the aged. If the so-called degenerative disorders can be detected and controlled before structural and functional damage becomes irrevocable, senescence becomes a normal phenomenon and disablement may be long deferred. The time for initiating medical management is from full maturity onward. This constitutes prophylactic geriatrics.

There are certain limitations to the practical application of prophylactic geriatrics. Adequate time for a high degree of individualization and thoroughness in both diagnostic study and therapy is the essence of any program which is likely to be successful. Thus, effective personal preventive medicine inevitably is expensive. Its foundation is the periodic health inventory. An adequate health inventory, or audit, requires much more than a clinical physical examination. A careful, painstakingly detailed history, information gained from laboratory procedures, X-ray examinations, functional tests, and intelligent clinical correlation of all data are necessary before the physician is in a position to evaluate the degree of health of an individual patient. Such knowledge is prerequisite to sound counsel. It is the quality of advice which determines the value of periodic health audits.

Three factors have acted to lessen the effectiveness of periodic health analyses. In the first place a lack of methods and criteria for health mensuration imposes an immense handicap upon the conscientious physician. Secondly, there has been little enthusiasm for such consultations on the part of most clinicians. All too frequently the results of a superficial examination are merely recorded and no time is taken to instruct the patient in the hygiene of living with an aging body. Physicians themselves are notoriously lax in protecting their own health by periodic audits. No doctor will be successful in health maintenance if he does not believe in it. Convinced of its potentialities, he must apply it to himself first. The third factor is the inertia of mankind in practicing any form of prophylaxis. Public health medicine has been so dramatically successful in reducing the morbidity and mortality from infective diseases largely because its measures involve a minimum of effort on the part of those benefited. The city dweller has his sanitary food and water and his protection against communicable diseases without directly participating in the work necessary to insure these blessings. On the other hand, personal preventive medicine invariably involves some personal effort, and perhaps certain irksome restrictions, on the part of the patient. The chronic diseases of later life are frequently etiologically associated with indulgence. Especially is this notable in diabetes mellitus, obesity, and certain forms of vascular disease. Furthermore, prevention lacks the drama of cure. The benefits of prophylaxis are revealed only statistically. Statistics are abstractions and thus have little emotional appeal. Thus it is always difficult to "sell" prophylaxis. It may be pointed out, however, that personal effort in health conservation is an important obligation to the community as well as of value to the individual.

If, however, we take the viewpoint that the function of periodic medical consultations goes beyond the prevention of exogenous disease and is directed toward an improvement of the individual's health, vigor and reserve, it should prove pragmatic to call this form of medicine "constructive" rather than merely "preventive." As therapy against disease constitutes attempts to reconstruct health, therapy for the apparently well can be well applied to the construction of greater health. Health is always relative, never absolute. Thus, there is always room for improvement. The term constructive has a positive connotation in contrast to the negative implication of preventive and the accomplishments (such as improved hemoglobin, weight changes, etc.) are directly rather than statistically demonstrable. This should overcome much of the inertia against preventive medicine and may perhaps aid in arousing a greater enthusiasm for such valuable services, both among physicians and the laity.

Constructive medicine must include many aspects of the patient's life and daily hygiene. The mode of living, adequacy of sleep, character of work, type and amount of exercise, investment or waste of leisure, all play parts in the hygiene of health. With older individuals the diet takes on new significance. The questions of bulk, vitamins, minerals, and fluids are particularly pertinent. It is curious how often water is forgotten in considering dietary régimes. Grievous mischief may follow sudden radical curtailment of such habits as the use of tobacco, alcohol or coffee in older individuals. Mental problems may require careful investigations and sound advice. Personality plays a major role in longevity. When careful health inventory reveals the beginnings of disease, active therapy should be instituted promptly. Though the early hypertensive or mild diabetic is rarely in immediate jeopardy, these diseases are all persistently progressive. It is impossible to dwell upon the active treatment of geriatric disorders now.

The aging and aged constitute an increasingly significant fraction of our population. Increased longevity without health is a social evil potentially destructive to national economy. The burden of prolonged disabling illness is already a heavy load, and the premature incapacitation of older persons with highly developed skills, judgment and knowledge is a deplorable loss. Contrariwise, increased longevity with health can become an incalculably valuable asset to the commonwealth, if the potentialities of the elderly are wisely utilized. Before this vast treasure of neglected productivity resident in those millions past the so-called prime of life can be fully developed and employed to the best advantage, there is much work to be done. Cultivation must ever precede the harvest. It is upon science, and particularly upon physicians, that the major share of responsibility rests. By defining a few of the problems we may perhaps hope to plant some seeds which, with the careful and impartial cultivation of science, may later flower into a period of intellectual conquest and progress. For then man may at last live long enough to think.

Prophylactic geriatrics has as its primary objective not the mere prolongation of life but the enhancement of health and vigor of those past the meridian. To prevent aging would be to arrest life; aging is an integral part of living. Aging starts with conception. The privilege of longevity makes effort toward health maintenance an obligation. Though pampering paternalism has destroyed much of the sense of individual responsibility, it can be reawakened. It must be, if we are to remain a virile nation. Health in the latter years is not to be had for the mere asking, but it may be conserved by wisely guided conscientious effort. Some of the things which need to be done are:

1. Much carefully controlled research into the biology of aging. Here all scientific disciplines and many years of orchestrated effort are needed. Basic data concerning the biochemic, structural and physiologic changes which constitute normal aging are necessary for the differentiation of normal senescence from pathologic states. To be fully intelligent in our attack upon the clinical problems of aging men and women, we need to know much, much more of just what aging is and does.

2. Study of the changes which occur with normal aging in man. Normal is not fixed. Physiologic constants, such as the chemical balance of the body, and physiologic responses to stresses and/or disease change with age. It is obvious that far more extensive information as to the alterations in mental and physical capacities occurring in normal senescence is essential to the proper employment of older individuals.

3. Critical appraisal of existing diagnostic criteria and methods employed in the evaluation of health.

4. Development of improved methods of health mensuration, with particular emphasis on clinical tests directed toward detection of early depreciation of functional reserves and thus the evaluation of physiologic age as contrasted with chronologic age.

5. Continuation and extension of clinical research into the problems of those progressive disorders whose incidence rises sharply with advancing years. Though most of these disorders offer little hope for cure, much may be done to control them or retard their progression. With comprehensive understanding prevention is not impossible.

6. To apply much more conscientiously and patiently the existing knowledge concerning the management of geriatric disorders. Here there is much room for improvement. The lag between knowledge and application is sadly large.

7. To define more precisely than has been done heretofore just what constitutes the minimum effectively thorough periodic health inventory for persons over 45.

8. To apply through constructive medicine the lesson learned from pediatrics that it is possible to make well people healthier by instituting proper hygienic régimes, with careful nutritional planning and prompt attention to apparently minor but potentially dangerous abnormalities.

9. To widen the application of prophylactic geriatrics by an increasing interest on the part of the medical profession. Physicians must lead, and leadership is oft best accomplished by setting a good example.

10. To encourage the seeking of health maintenance advice by mature adults. Such guidance will be sought more and more if physicians are conscientious in their diagnostic inventories and will but take the time to offer wise, appropriate and feasible counsel. The child prepares himself to be an adult; the adult must needs prepare himself for old age.

War, like therapeutics, is more than heroic attack upon exogenous menaces. To win wars the internal milieu of the body politic must be considered, as medicine likewise considers the homeostatic mechanisms of the sick organism. The equilibrium of the Nation is disturbed by the shifting balance of our population. This shift may prove advantageous if the increased longevity is paralleled by health and productiveness; it may become disastrous if the chronic, progressive and disabling disorders of later life are not controlled. Not infrequently the most precarious period of an illness is after the crisis. We must see ahead and become better prepared to cope with the problems of the aging and the aged. Therapy should consider the patient first and the illness second. Furthermore, we must not forget that the wisdom of older men in the positions of great responsibility represents an invaluable national resource. The conservation of the health of these almost irreplaceable individuals by prophylactic geriatrics is a major obligation of medical science.

Report on a 15 year study of rheumatic heart disease. When rheumatic heart disease begins in childhood, 69 per cent survive childhood, 35 per cent survive adolescence, 18 per cent reach the age of 30 and 5 per cent live beyond the age of 45, Alfred E. Cohn, M.D., and Claire Lingg, New York, report in *The Journal of the American Medical Association* for January 2, 1943. "When the disease begins in adolescence," they say, "85 per cent survive this age period, 55 per cent reach the age of 30 and 21 per cent the age of 46 or more. When the onset is in the twenties 23 per cent and when it is after 30, 44 per cent survive the age of 45."

These findings are based on a study which occupied the authors continuously for fifteen years during which 3,129 patients with rheumatic heart disease were observed until death.

"The supposition is general that girls are more often afflicted than boys," the authors say, "but when so large an experience as this is available it appears that this is not the case—the two sexes are afflicted in equal numbers. There were 1,566 males and 1,563 females."

Among other important facts about the disease revealed by this study is that there is no important difference between the sexes in the age at onset. The mean age for males is about 14 years and for females about 15 years.

"Rheumatic fever," the authors say, "may begin at any age, but it usually begins in childhood, especially between the ages of 5 and 10 years. At 15, 70 per cent of persons afflicted have already acquired the disease.

"In youth, the onset of the disease is characterized by polyarthritis in about half and by carditis or chorea in about one third. In adult life, the onset is characterized chiefly by polyarthritis and, with advancing age, by the appearance of valvular lesions alone.

"The mean duration of the disease is about 13 years; 50 per cent of patients die within nine years after onset but 25 per cent live more than seventeen years and 10 per cent for thirty or more years. . . .

"Of all cases of rheumatic cardiac disease, 65 per cent are to be found in childhood. In the remaining 35 per cent the disease is acquired at later age periods. In adolescence are to be found 56 per cent, the survivors from childhood plus those who have acquired the disease in this age period. In the age group past 45 are to be found only 16 per cent, of whom 13 per cent were first afflicted before and 3 per cent after age 45."

President's Page

MEDICAL CARE FOR WASHINGTONIANS

The most important project to be undertaken by the Medical Society of the District of Columbia early in 1943 is a medical care program which will assure residents of Washington essential medical care during the war. Recommendations contained in the report on the survey of practising physicians in the District recently completed by the United States Public Health Service for the Procurement and Assignment Service and approved by the Executive Board will serve as a basis for the Society's plans.

The first step to be taken is the creation of a Committee on Medical Service. Preliminary to the organization of the Committee, the District will be divided into areas. Representing each will be a physician who will be a member of the Committee. Also represented on the Committee will be the United States Public Health Service, the District Health Department and the local Emergency Medical Service of Civilian Defense.

Upon the completion of its organization two proposals will be submitted for its approval. The first is a canvass of physicians in the District to ascertain the patient load each is carrying, and their ability to meet demands made upon them. As it is already evident that the District has too few general practitioners, specialists will be requested to do general practice. In addition volunteers will be sought to be listed with the Society to make calls on persons without physicians in areas where there is a scarcity of general practitioners.

The second is the consideration of such plans as may be necessary to supplement the existing medical facilities in the event of an emergency. This might include postwar planning.

All decisions affecting policies of the Society will be referred to the Executive Board for its approval, which in turn will make its recommendations to the Society.

There will be great opportunities for public service open to the medical profession of Washington in the coming year. I feel certain that our organization will more than measure up to them, and that we can count on the support of all our members.

I wish our members and their families a Happy New Year, and with them I hope that before 1943 comes to a close, victory will be ours.

Editorials

OUR 125TH ANNIVERSARY

The handful of physicians who gathered in Tennyson's Tavern, situated on Pennsylvania Avenue near 14th Street, on September 26, 1817 at 11:00 a.m., for the purpose of organizing a medical society, had one thing in mind—"the promotion of medical science." A century and a quarter later, the Medical Society of the District of Columbia still adheres to this objective. Chapter I, Article II of its present Constitution and By-laws reads: "The object of this Society shall be the promotion of the science and art of medicine and sanitation and the common interests of its members and the public."

None of those present at that first meeting could, in the wildest stretches of their imaginations, have foreseen conditions as they exist today. But then as now, they were primarily physicians concerned with preventing and alleviating human ills.

Those who like to delve in the records of the past will find in the history of the Medical Society of the District of Columbia a fascinating record of the development of medical science. Down through the years the battle against disease has been waged incessantly by physicians in the Nation's Capital. Often rewarded with success, they have also experienced disheartening failures.

In an excellent paper entitled "Medicine in the Nation's Capital—1817–1942," presented by Dr. Arthur C. Christie at the recent meeting commemorating the Society's 125th Anniversary, and published in this issue of the MEDICAL ANNALS, many important contributions of the Society to the community are recounted. Dr. Christie relates how largely through the efforts of the Society, important public health measures and sanitary improvements have been adopted in the District. Attention is also directed to the educational work among the laity and the Society's anticipation of social and economic trends in medicine. He reminds us that illustrious physicians of the past appeared before the Society on numerous occasions. Among them were Dr. Philip Syng Physick, Sir William Osler, Major Walter Reed, Dr. W. W. Keen, Dr. J. H. Musser, Dr. W. C. Gorgas and Dr. W. C. Grenfell.

Just as in the history of families, there have been periods in the Society's existence, as shown by its records, when it was more effective than in others. At the present moment it is a well organized and active group, which is extremely important when changes in medical practice seem inevitable.

The Society's anniversary serves to remind us that we are following in the footsteps of great leaders of the past and our duty is to live up to the responsibilities of our day as they did to theirs.

RHEUMATIC FEVER

Elsewhere in this issue of the ANNALS is presented an outline of present concepts of rheumatic fever.[1] Obviously this prevalent disease represents one of the major challenges to Medicine. In childhood and adolescence it ranks high as a cause of death. In fact, between ages 10 and 14 years it causes more deaths than any other disease. Between ages 5 and 9 it is outranked only by the principal communicable diseases of childhood combined, and between 15 and 24 years only by tuberculosis.[2] Such statistics have appalling significance, but unfortunately they show only a little of the picture. For every patient who dies of rheumatic fever in childhood there are many who survive for a number of years in spite of chronic structural damage to the heart, only to die at a time when their lives should be most vigorous and productive. Indeed, more patients die of rheumatic heart disease in adult life than during childhood and adolescence.[3]

Rheumatic fever is a chronic condition. It begins usually in childhood with one or a series of relatively acute disabling attacks which are variable in their manifestations but almost invariable in their tendency to damage the heart. With each renewal of activity of the process, injury to the heart is repeated. It is now understood that the acute attack of rheumatic fever may be expected to last for several months, and the duration of more serious episodes often exceeds a year. Furthermore, each attack seems in some way to predispose the patient to a succeeding one.

With these facts in mind, some conception of the magnitude of rheumatic fever as a medical, economic and social problem is obtained. The hard fact is inescapable that to date we have not made full use of the methods best suited to controlling the disease. The solution of the problem necessarily requires the active participation of many agencies.

Education of the public as well as the medical profession must come first. In this connection the Metropolitan Life Insurance Company has recently inaugurated a national campaign to spread the knowledge about rheumatic fever. Of course, care must be taken in any educational program of this type that the importance of some of the effects of rheumatic fever shall not be exaggerated. For example, the finding of a murmur due to rheumatic heart disease, particularly in a heart of normal size, is not in itself important. However, it is from the exaggeration of the importance of this kind of manifestation that cardiac neurosis evolves.

Intensification of the interest of public health authority in rheumatic fever is inevitable and necessary to the solution of the problem. As Walsh has stated,[1] the best methods of dealing with active rheumatic fever require the use of a special kind of hospital. The need for such facilities will surely have to be satisfied in most localities by public health authorities rather than by private means. We may take some pride in the fact that the Health Department of the District of Columbia has already provided a 44-bed-unit at Gallinger Hospital to furnish long-time care for patients with rheumatic fever. We may certainly hope that this auspicious beginning will of itself do much to meet the challenge of a disabling and deadly disease.

HUGH HUDSON HUSSEY, M.D.

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[1] Walsh, B. J.: M. Ann. District of Columbia, 1943, **12,** 9.

[2] Statistical Bulletin, Metropolitan Life Insurance Co., 1942, **23,** no. 9, 2.

[3] Swift, H. F.: J. A. M. A., 1940, **115,** 1509.

SOCIAL INSURANCE IN THE UNITED STATES

Physicians are likely to consider themselves the only group primarily concerned with the future of medicine, particularly the changes which may occur in medical practice. As a matter of fact, there are many organizations and institutions which are intimately concerned with developments in this field. An example of this is the life insurance company. In an address delivered last October entitled "Social Insurance in a Democracy," Mr. Reinhard A. Hohaus, Associate Actuary of the Metropolitan Life Insurance Company, makes a detailed analysis of the health aspects of insurance. It is not possible to publish his speech in its entirety but some of his observations will be of special interest to physicians.

The relationship of social to private insurance is described as follows:

"With benefits related primarily to the individual's and his family's probable minimum needs to keep them from becoming public charges, it is obvious that the level of protection in social insurance may be, and usually is, quite different from that set for the insured in either individual or group insurance. Social insurance is compulsory with uniformity of benefits. Private insurance is voluntary, with each insured setting his own standards of security as to both plan of coverage and amount. This distinction cannot be over-emphasized because it makes clear why social insurance and private insurance can, and should, go hand-in-hand in providing the security the individual desires to meet his own needs and circumstances."

". . . Much remains to be done by way of developing a proper understanding among those concerned as to the nature of the protection which social insurance should aim to provide, and the way in which private insurance and other agencies can operate to supplement it—and perhaps even furnish it in part."

Mr. Hohaus then proceeds to divide social insurance into the following categories:

1. Provision for old age and for dependent survivors at death.
2. Unemployment insurance.
3. Health insurance.

In regard to the last, Mr. Hohaus has this to say:

"The third category of social insurance—health insurance—is still mainly in the discussion stage and we find here a very confused situation. Even some of the most fundamental questions are still to be answered. Thus there is disagreement as to the need for a compulsory plan of Government Health Insurance; as to the governmental agencies—Federal, State or local—which should apply the compulsion, if compulsion is to be exercised; how the responsibility should be apportioned between such agencies; and as to whether Government itself should set up the organization for rendering service, or merely require individuals to find or create organizations for themselves.

"Indeed even as to the meaning of the expression 'health insurance' we find differences of opinion. Some of us, in our innocence, may look upon it as simply a mechanism for providing cash benefits during illness, such as the plan recently adopted by Rhode Island."

Viewing the situation broadly, Mr. Hohaus finds it very complex. He continues:

" 'Adequate medical care' in turn introduces other questions besides providing the services of a physician for the insured workman. Does it also mean such provision for his dependents? Does it extend to hospitalization of himself or his family? Does it embrace the cost of drugs, surgical appliances, glasses, etc.? Is maternity an insurable risk? Should provision be made for dental care?

"What interpretation should be placed on the fact that millions of individuals have voluntarily become insured with insurance companies, hospital service plans, etc., for weekly or monthly cash benefits in event of accident or sickness, for hospital expenses, or for benefits in event of surgical operations, while plans offering insurance in one form or another for general medical care have met with a relatively limited response?

"Should medical care protection be on the basis of providing the services in kind, or should it be on a reimbursement basis for part or all of the charges to the individual by the physician or institution in question? If services in kind, how should the doctor be compensated—by salary, on a per capita panel basis, or on a fee-for-service basis? Should the plan be entirely under medical control, or should there be lay participation in its management?

"Should a health insurance plan limit itself to care for the disabled, or should it also include health education, periodic examinations, and other preventive work supplementing, or even replacing, that now being done by Federal and State Public Health and other agencies?"

In considering postwar developments in medical care, Mr. Hohaus says:

"The questions posed are not simply the pros and cons of extending our present social insurance system to health insurance. A number of signs indicate that, irrespective of what the decision is regarding such an extension, the next few years will see a number of major developments and innovations in the provision of medical care."

"At least some of the advocates of health insurance maintain that the Federal government should assume a more active role in making available a socially adequate minimum of medical care—a matter of very intimate and personal concern to every citizen—and in distributing its costs to lighten the financial burdens on the individual when he or one of his dependents becomes disabled. If such action is taken, what procedure should be used to determine the principles to be followed in deciding to what extent, if any, the social insurance approach is appropriate, and in formulating the Federal standards that are to be generally enforced? All of us will agree that they should not be dictates handed down by a supposedly wise and benevolent government, but rather the outcome of a more democratic procedure in which the interests most vitally concerned are encouraged to make their appropriate contributions.

"Any widely acceptable standards can hardly do less than embody a broad consensus of opinion among the groups most vitally concerned, and much greater emphasis should be placed on the fact that these groups include insurance companies (stock and mutual), fraternal organizations, hospital service and similar organizations for medical care. These institutions have a vast amount of very helpful experience and have made very striking contributions in aiding the individual to handle the economic problems which disability presents.

"Without careful planning, the adoption of Federal minimum standards involves the risk of the nation finding itself saddled with a government scheme under which most private health plans will be eliminated, and available medical care, and accompanying cash benefits, will be reduced to a level of uniformity providing less adequate benefits than would otherwise be available for many people."

"For the Federal government's prime interest should be the end to be served—an acceptable minimum of protection for all. It should be interested in means only to the extent necessary to ensure the swift and sure attainment of this end. It should itself operate such means only to the extent that the job cannot be done at least as well by other agencies, whether private or on a lower governmental level."

Mr. Hohaus has analyzed the shortcomings as well as the benefits of government-sponsored insurance in an objective manner. Needless to say, it is extremely important that physicians also approach the health insurance issue realistically. Only in this way can they arrive at sound conclusions.

PERTINENT PARAGRAPHS

December Meetings The reduction in the number of general meetings voted by the Society was most noticeable in December. Boards and committees continued to be active with numerous matters of considerable importance to the Society. Announcement of new projects will be made shortly after the first of the year.

The following meetings were held:

December 2	Section on Pathology and Laboratory Medicine
December 3	Section on Neurology and Psychiatry
December 7	Section on Gastroenterology
December 8	Editorial Board
December 9	Anniversary Meeting of Society
December 10	Subcommittee on Tuberculosis
December 15	Interprofessional Conference
December 16	Scientific Meeting of Society Procurement and Assignment Committee
December 18	Committee on Industrial Medicine
December 26	Section on Pathology and Laboratory Medicine
December 28	Executive Board
December 29	Board of Censors

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Admiral McIntire Not Pessimistic Many physicians will tell you that they know what the Administration's plans are for the future and that they have sad implications for medicine. Like so many generalizations, this one is only partially true. It is well known that there are Government officials who, if they could, would regiment the medical profession. On the other hand, there are those in positions of importance who are strongly opposed to regimentation and say so in no uncertain terms.

Rear Admiral Ross T. McIntire, Surgeon General of the United States Navy, recently addressed the Annual Conference of Secretaries and Editors of Constituent State Medical Associations in Chicago. Ably he reviewed progress which has been made in the treatment of war casualties. In the course of his talk he referred to postwar problems relating to medical care, saying:

> "It is my hope that we shall never see medicine in this country subsidized by the government. I do believe, however, that the government can, and should, help in any way it can to reduce hospital costs. Providing means to reduce the fees that come from all kinds of laboratories and specialized examinations would be a legitimate means of government aid."
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> "When this war is over, our doctors are coming back to this country. There will be thousands and thousands who will go back into civil life, because the Army and the Navy will shrink, as they should, but I hope never to the point they did before. These men are coming back with an entirely different slant on a lot of things. I think we must be careful that they do not come back with the idea that they can practice only one form of medicine. Specialization—yes, we must keep it. But I feel that this organization has a duty to do. It should be the guiding body in specialization in this country.
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> "That brings me to the point of the cost of medical and hospital care. I hope the time never comes when the practice of medicine, or anything that has to do with it, has to come under government control. I think it would be a disaster to this country; it would be a disaster to medicine. When this war is over, money is going to be a scarce article; it is going to be scarce with all of us. This war is going to be mighty tough on all pocketbooks. When this is over the man who makes $1,400 a year or $1,800 or $2,000 is still going to have his family to support. What are you going to do about that group? What are we going to do about the cost of hospital care? How can that man go through a period such as we are going to have without question for ten years after this war finishes?
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> "I am not a pessimist about this; I think it can be done. I believe medicine should start thinking constructively today on that subject. I don't think we should allow organizations that are not competent to dictate to us, but unless we have something sound, so that we can lead the band down the right street and out of a blind alley, we are likely to have something like that shoved on us.
>
> "I hope you will give serious thought to this. I do not have the answer at this time; I have some ideas. You are a representative group. You have had years of experience. You see things happen in all sections of the country. Let us be about it, and let us see what we can do."

This is an honest, straightforward statement which should impress every doctor with its sincerity. One can be fairly certain that it is not contrary to the views of Administration leaders who count. It seems then that the ball has been passed to us. What will we do with it?

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Spanish Urged for Medical Students

Expressing the belief that linguistic difficulties have constituted an obstacle to mutual understanding between the countries of the Western Hemisphere and that much could be gained in the field of science if physicians could speak Spanish and Portuguese, the American Urological Association, at its annual executive session in New York City on June 3, 1942, adopted the following resolutions:

WHEREAS, The close association of the physicians of the Western Hemisphere for the purpose of facilitating the interchange of scientific knowledge would afford one basis for mutual understanding and good will; and

WHEREAS, The American Urological Association desires to contribute to the establishment of such a relationship; and

WHEREAS, The members of the American Urological Association believe that one of the obstacles in the way of mutual understanding is the difference in languages;

THEREFORE, Be It Resolved, That the American Urological Association in executive session, June 3, 1942, recommends:

(a) That all of the educational institutions of the United States which prepare students for the study of medicine teach a minimum of two years of Spanish and/or Portuguese;

(b) That the medical schools of the United States require for entrance a minimum of two years of Spanish and/or Portuguese;

(c) That a minimum of two hours a week during the scholastic year of conversational Spanish and/or Portuguese be required as a part of the entire term of the medical curriculum;

(d) That attempts be made to encourage physicians who speak Spanish and/or Portuguese to conduct courses of lectures in these languages for students of medicine;

(e) That an attempt be made by the medical schools of the United States, both undergraduate and postgraduate, to stimulate and foster by every means possible, including the student exchange program, the training in the schools of the United States and of Canada of Latin American students;

(f) That the officers and members of the American Urological Association coöperate with the faculties of educational institutions in the United States in any manner considered practicable in carrying out a program which will aid the English-speaking members of the medical profession to obtain a working knowledge of Spanish and/or Portuguese; and further,

Be It Resolved, that a copy of these resolutions be sent to the American Medical Association and to the journal of each state society, requesting that sufficient publicity be given these resolutions to acquaint every premedical and medical school with this intent, and

That a copy of these resolutions be mailed to every medical school in the Western Hemisphere, to the offices of the embassies or ministries in Washington, D. C., of every country in this hemisphere outside of the United States, and to the Department of State of the United States Government.

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Shortsighted Policy Criticized

Evidence of a shortsighted policy in the selection of candidates for military service is to be found in psychiatric wards of camp hospitals and other medical institutions where there are Government facilities for the observation and care of neuropsychiatric patients, according to Dr. Douglas A. Thom, Professor of Psychiatry at Tufts Medical School. In a paper on "The War and Its Effect upon the Mental Health of the Armed Forces," which appears in the December issue of the *Virginia Medical Monthly*, Dr. Thom suggests that "Selective Service Boards should have a record of every individual of military age who has had treatment in either a public or private institution and the private practitioner should be called upon to acquaint these boards with the names of individuals which are known to him to be unfit for military service."

Utilization of various civilian organizations in obtaining histories of individuals who give evidence of nervous instability is also urged. Particularly does Dr. Thom emphasize that where individuals show evidence of mental disturbance, histories should be obtained during the period of observation after induction into service. Dr. Thom feels that if every candidate for military service was accepted for a preliminary or probationary period before induction into the Army or Navy with the right of honorable discharge if found not suitable for medical reasons for military service, the Government would save millions of dollars for medical care and thousands of individuals would be salvaged for a useful civilian life.

Commenting on the present methods of detecting potential mental cases, Dr. Thom says:

> "It is rather difficult to reconcile the rather superficial neuropsychiatric examinations which the prospective soldiers are being given at the present time, limited to six or eight minutes for each man, with the importance of these neuropsychiatric casualties both from a military and from an economic point of view. Recently, it was stated that adequate psychiatric examinations which would weed out the potential neuropsychiatric disabilities from the army would save the Government one-half billion dollars for every one million draftees. The Director of the Veterans' Affairs has stated that every psychotic individual that breaks down in the army costs the Government thirty thousand dollars from the time of the onset of his disease until his death. If psychiatrists can be hired at the rate of fifteen dollars a day, it takes but a little mathematical reckoning to determine that if one psychiatrist picked out one potential psychotic every six years, he would save the Government his salary. With the aid of an adequate social service staff and at very little additional expense to the Government, the psychiatric examinations, as carried

> out at the present time, could be made infinitely more valuable."

Certainly every precaution possible should be taken to keep men who might prove mentally unfit out of the armed services. This is not as simple as it appears. When war comes to a country like ours, an army must be raised as rapidly as possible. Under these circumstances, it is difficult to allow the time for extensive psychiatric examinations without delaying the expansion of the armed forces. The solution to this problem perhaps lies in preparing for war in time of peace. But then, we hope that this war will be the last for a long time.

* * *

Medical Problems of Flight

It has always been true that in times of war science has made great strides. During the first World War, great progress was made in medicine, particularly in surgery. The present conflict is stimulating scientific investigation which might otherwise have been delayed for many years. So despite the tragedy of war, there will be at least some compensations.

An example of the opportunities for the medical research worker is to be found in the field of aviation. In the November 1942 issue of the *Journal of the Florida Medical Association*, Major Nathan S. Rubin, M.C., U.S.A., expresses the view that "as the development of aviation progresses and as airplanes become more powerful, fly faster and fly higher, the medical profession must keep pace with the special medical problems which have arisen." He says further: "The physical elements influencing the human organism most during flight in the modern airplane are concerned with vibration, noise, ventilation, temperature and high altitude flying. Except for high altitude flying, the skill of technical engineering has brought these factors well within the zone of passenger comfort. But the physiologic and psychologic impairments resulting from ascent, descent and altitude continue as today's medical problems of aviation."

In the field of aeronautics alone, therefore, the contribution of medical science will aid immeasurably in the development of air transportation. Most important, it will save many valuable lives which might otherwise be lost. There is no yardstick by which such gains can be measured. That they will have a tremendous influence on our civilization is obvious.

* * *

A Challenging Era

Dr. Willard C. Rappleye, Dean of the Faculty of Medicine, Columbia University, who is known as one of the more progressive educators, believes that "our problems today are different not so much in kind as in complexity from those faced in the ancient days of the Pharaohs, during the rule of Hammurabi in Babylonia, in the time of Hippocrates, through the Dark Ages and the tragic period of the Black Death."

> "In view of the demolition or diversion of scientific and educational institutions almost everywhere," he continues, "mere preservation of the advances in the fields of science and medicine has become a major concern. We in the western world, not unlike Greece and Rome before us, are in a real sense of the word the trustees of the accumulated knowledge, skills and productive efforts of past centuries. We will not fail the future."

Dr. Rappleye addressed these remarks to medical students graduating from the Long Island College of Medicine last May. On this occasion he also spoke of the trends which will probably confront them in the postwar era as follows:

> "The problems of medical care have been shifting noticeably in recent years. A generation ago, for example, greatest attention of necessity was devoted to the crippling and killing disorders of infancy and the infectious diseases of youth. Success in the control of diphtheria, typhoid fever, smallpox, the gastrointestinal disorders of infancy, and tuberculosis, as illustrations, has greatly modified medical care and education. Partly because of these accomplishments, as well as the lowered

birth rate and reduced immigration, more people live to adulthood and old age. The proportion of the population over 50 years of age has about doubled since the Civil War and will be almost trebled by 1975. The effect of this fundamental change in the composition of our communities is of significance not only in the field of medical care and the health of individuals but is of great importance in relation to employment, family life, recreation and politics.

"The shift in the age distribution has been reflected in medical teaching, research, nursing and hospital care. The degenerative disorders of the heart, blood vessels, kidneys and joints, together with the various forms of malignancy, account for most of the disabilities and death in persons over 50 years of age. About 60 per cent of deaths in individuals over 40 years of age are due to the causes just enumerated.

"The spectacular results from the sulfa drugs have added a whole new and gratifyingly successful field of treatment for many obstinate and frequently fatal infections. The newer developments in nutrition, radiation therapy, endocrinology, the virus diseases, immunology and surgery have had a profound influence on medical instruction and research. These and many other contributions will play important roles in the medicine of tomorrow for which we must prepare today.

"These comments on the reconstruction period would be quite incomplete if limited merely to scientific considerations. Fundamental changes in the methods of providing medical, hospital, nursing, dental and home care have been in process in recent years. The economic and professional dislocations of the war period may give added impetus to the trends already discernible. There has been a great deal of discussion recently, much of it rather loose and uninformed, on the questions of the economics of medical care. Search for a single formula for this complex problem is not likely to be successful. The situation can easily be oversimplified by enthusiastic advocates of some special solution.

"Suffice it to say here that increased attention has been given in the last few years to broad programs of social security as exemplified in the fields of unemployment, health, old age and disability. There is an awakening sense of responsibility on the part of communities, the professions and educational institutions that reasonably adequate medical, dental, hospital and nursing care should, as a matter of public policy and national health, be provided for every group of the population, economic as well as geographic.

"While it is not necessary at this time to predict the form which medical care of the future will assume, it is important that medical students and physicians be prepared in the public interest to initiate and guide the responsibilities of the professions under the changing social and economic conditions. It is well to emphasize that any sound plan of organizing and financing medical care for a community, whether developed from within the profession or imposed on it from without, should place the crucial responsibilities on the trained and competent physician.

"No statement expresses the broad social responsibilities and aspirations of medicine better than that of A. Lawrence Lowell, recently president of Harvard University, when in summarizing the progress of civilization he said, 'It is hardly an exaggeration to summarize the history of four hundred years by saying that the leading idea of a conquering nation in relation to the conquered was in 1600 to change their religion; in 1700 to change their laws; in 1800 to change their trade; and in 1900 to change their drainage. May we not say that on the prow of the conquering ship in these four hundred years, first stood the priest, then the lawyer, then the merchant, and finally the physician.'"

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Rationing and Doctors

Numerous complaints are still being received in the Society's office from doctors who have encountered difficulties in obtaining supplementary gasoline rations. Most of the trouble centers about their relationship with their local ration boards.

It has been explained to these physicians that whenever the physician needs gasoline and fails to obtain it from his local board, assistance will be given by the Secretary of the Society, who is in constant touch with rationing authorities. Physicians should remember that a decision must be made by their local boards on their requests for gasoline before their applications can be taken up with higher rationing authorities for the District. Often the physician has sent in his application by mail and is awaiting notification. Such notice will not usually be given by letter or telephone. The physician must apply for his additional coupons in person.

In a few instances local boards have been indifferent and physicians have complained that no attention is given their requests. Where this occurs, they should call the Society's office,

(*Continued on page 42*)

War Section

IMPORTANT ANNOUNCEMENT

The Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians wishes immediately the name of any doctor who is willing to be dislocated for service, either in industry or in overpopulated areas, and who has not been declared essential to his present locality. This is necessary if the medical profession is to be able to meet these needs adequately and promptly. Any physician over the age of 45 years who wishes to participate in the war effort in this way should send in his name immediately to the state chairman for the Procurement and Assignment Service in his state.

MUNICIPAL SANITATION UNDER WAR CONDITIONS

Maintenance of sewer service in bombed areas has been one of the major difficulties confronting municipal authorities in cities under enemy attack. To assist American municipal officials and defense councils in planning for emergencies and for the restoration of normal service following damage resulting from enemy action, the sanitary engineering section of the Medical Division of the Office of Civilian Defense has issued a bulletin entitled "Municipal Sanitation under War Conditions."

Sanitation problems constituting grave dangers to public health may result from direct damage to sewers or from failure of the water supply making water carriage facilities inoperable, the bulletin points out. To meet these problems, two measures are necessary: (1) strengthening of the municipal department responsible for sewer service in both personnel and material, and (2) coöperative planning with the local defense council and other municipal departments so that they may be integrated to function in an emergency.

The bulletin emphasizes the importance of accurate and complete information on the sewerage system, such as maps and records of all critical points at which a broken line would create a serious drainage problem and interrupt service over a considerable area. Inventories of material, personnel and equipment that could be used in the event of necessity are of value. Another point stressed is that essential equipment, personnel and material should be distributed throughout a city to avoid loss of equipment through a chance bomb hit and to lessen the possibility of being blocked from movement by obstructed streets.

It is urged that municipal departments work closely with defense councils in order that emergency functions may be carried out with a minimum of difficulty. For example, in order to function, persons and vehicles must be identified by the proper Civilian Defense insignia. Telephone service must be integrated with that of the control center or it may not be available in an emergency.

Three methods of emergency sanitation to be used when interruption of water service makes water-carried waste impossible are suggested in the bulletin: handling and disposal by individual householders, temporary disposal devices set up in territory adjacent to the affected area, and a scavenger system in which containers are collected and transported to a point of disposal.

One section of the bulletin is devoted to discussion of municipal waste collection and disposal in the event of enemy action. Little can be done to protect collection facilities against damage except to disperse collection units in several locations when not in use. New methods of disposal or changes in disposal site offer more difficulty than the maintenance of collection service. Usable material may be salvaged and combustible material may be burned near the place of origin.

The sanitary landfill is recommended as the method of disposal that could be most readily adopted. The problem of operating an incinerator during a blackout is also discussed.

NEW EMERGENCY VEHICLE PASSES ISSUED

The red emergency vehicle stickers which have been in use to facilitate the passage of emergency vehicles and other personnel through police lines during air raids, actual or for training purposes, have not been valid since December 31, 1942.

The red stickers are being replaced by new white emergency vehicle stickers. These passes are being issued to those vehicles which are required to move without restriction during periods of air raids, actual or for training purposes, in the interest of public security. Physicians are included in this group. All members of the medical profession except those belonging to Emergency Field Units or Receiving and Treatment teams of hospitals can obtain passes upon application at the office of the Medical Society, 1718 M Street, N.W. Passes for these special groups have been issued to the unit leaders from the office of Dr. John A. Reed, Chief Medical Officer of Emergency Medical Service for Civilian Defense in the District of Columbia.

In order to reduce the number of vehicles authorized to be on the streets during an emergency, the United States Coördinator for the District of Columbia has appointed a committee to pass upon applications for emergency vehicle passes. Members of the committee are Major Edward J. Kelly, Superintendent of Police, Mr. W. A. Van Duzer, Director of Vehicles and Traffic, and Mr. J. A. Brown, Chief of Transportation. All applications of physicians for passes will be submitted to this committee for approval.

Emergency vehicle passes will be issued only in those instances where there is an absolute necessity for an individual and vehicle to move during the actual duration of an emergency. They will not be issued where it is possible to postpone the movement of the vehicle until after the all-clear signal is given, nor will these passes be issued as a matter of individual convenience.

Through arrangements with Major Kelly, vehicles bearing the official designation approved by the several suburban coödinators will move in the District of Columbia with the same freedom as is permitted to District cars bearing District identification.

Surgical Demonstration at the Community War Fair, October 22–30, 1942

THE MEDICAL STAFF'S RESPONSIBILITY FOR MAINTENANCE OF HOSPITAL EQUIPMENT AND CONSERVATION OF SUPPLIES

W. W. Eldridge, M.D.

Chief Medical Officer, Saint Elizabeths Hospital

Some years ago I read a paper from this platform entitled, "The Obligation of the Hospital to the Intern." It provoked a good deal of discussion, some of it acrimonious. As a result of that discussion, in which one of Washington's best known surgeons participated, I remember stating in my closing remarks that it appeared the paper should have been entitled, "The Obligation of the Intern to the Hospital." I have always agreed that a paper from either of these viewpoints could be profitably written if undertaken with objectivity.

I have now been asked to make a few remarks in regard to certain phases of the obligation of the medical staff, including the intern, to the hospital; in this instance, the obligation for maintenance of equipment and conservation of supplies.

At St. Elizabeths Hospital the Medical and Surgical Department, for which I am the responsible medical officer, is like a general hospital within the larger institution, with a capacity of two hundred beds for the care of acute medical and surgical conditions. Here are operated also the usual dispensaries and clinics.

For the purpose of these few remarks I am in the fortunate position of being a physician in practice in this hospital and at the same time the counterpart of the general hospital superintendent; that is, I am responsible to the Superintendent of St. Elizabeths Hospital for the proper and economic operation of the organization. I can therefore speak frankly from the viewpoint of each without having to wonder if I am insulting the other, because this is Eldridge talking to Eldridge.

The matter of maintenance of equipment and conservation of supplies is one which the medical staff should have keenly in mind at all times and especially in such stringent times as the present. The hospital always finds itself in a difficult financial position. As is well known, its income is never sufficient to keep up with the necessary demands made on it. It is therefore axiomatic that the greater the care and economy that is exercised in the use of its material facilities the nearer it can come to meeting the aforesaid demands. In fact, I think that the relationship of these factors is such that a physicist or a mathematician could probably evolve a physical law to describe it. It might be said that the efficiency of hospital service is directly proportional to the care and thoughtfulness exercised by its medical staff.

There are many acts of omission and of commission by all of the members of a hospital organization that tend to shorten the useful life of equipment and to unnecessarily increase the amount of material used. Most of these acts are common to both the professional and nonprofessional staff. Others can probably be laid chiefly at the door of the medical staff.

The surgeon who in exasperation develops a temper tantrum and throws an instrument to the floor can be blamed personally if on account of his psychologic deficiency the amount of the hospital budget for new instruments is too little to cover needed replacements. Fortunately this type of physician, although always with us, is the rare exception to the rule. His acts are damaging to equipment, matériel and personnel, and should not be tolerated. However, he accounts for only a small part of hospital wastage.

Thoughtlessness and carelessness account for the greatest losses. The thoughtlessness expressed when a doctor carelessly shakes his fountain pen in the general environment of the chart desk and succeeds in staining the floor coverings, the wall and other surfaces; the carelessness shown when, after an intravenous injection he places the syringe on the edge of the bed, to be knocked off by the patient, unaware of its presence; the negligence occurring when he drops instruments into a basin after a redressing instead of placing them carefully to avoid marring sharp edges or points; the sometimes careless impatience exhibited in putting on rubber gloves —all are a part of the picture of hospital wastage for which the medical staff is responsible.

It has been remarked many times by operating room supervisors, and I think with complete justification, that there is great waste of gauze in the operating room. Sponges are discarded when only a small surface portion has been used. Use of the complete absorption potential of sponges would result in the saving of many gross in the course of a few weeks in any hospital.

So with postoperative redressings. Excessive use of redressing material can be witnessed any day on the wards or in the private rooms. While this is not a universal sin, it can be charged against many of the staff. It is due to thoughtlessness.

Individual choice by many different doctors of various brands of some general class of medications, for instance, sedatives, causes the hospital to stock an unnecessarily large variety of them. If the staff would in general decide on one or two brands, the hospital budget would benefit to a considerable extent. Except in the imagination of some members of the staff, the patient would in no wise suffer.

From a much broader point of view, and entirely aside from any consideration of the hospital budget, the time is upon us when many of the materials we have considered essential are no longer available at any price.

I noticed in the last number of the local MEDICAL ANNALS a statement bearing directly on this very fact, the substance of which was that very shortly hospitals of the nation will be obliged to depend on the stocks of medical and hospital supplies and equipment which are now on the shelves of the dealers. The shortage of raw materials will not permit the usual flow of manufactured articles for replenishment of such stocks. The present shelf inventory will constitute the only reserve of such material, in the near future, to meet civilian needs.

This fact makes mandatory a habit which should have been cultivated long ago for far less pressing reasons.

All of the foregoing remarks, it has probably been noted, are a recitation of the acts of omission and of commission chargeable to the medical staff in relation to the use of hospital facilities. The obligation of the staff to maintain equipment and conserve matériel has not been argued. This is because it has seemed to me that such obligation, once stated, did not permit of argument. The title of the subject of this paper constitutes one of those self-evident truths of which we are reminded by our forefathers in the opening phrases of the Declaration of Independence. It is the legal as well as the ethical obligation of the physician to do everything possible for the relief and cure of his sick patient, and to omit doing those things which tend to interfere with this result.

It is necessary to hospitalize many of his patients in order to accomplish the end desired. It therefore follows naturally that it is his obligation to so function in his hospital activities that the maintenance of the needed equipment will be assured and the conservation of matériel will be fostered.

WOMAN'S AUXILIARY NOTES

The Woman's Auxiliary to the Medical Society of the District of Columbia met in the Medical Society's building, December 9, 1942. Lt. Julia M. Kerby and Lt. Marian McAdams of the Women's Auxiliary Army Corps gave instructive talks on the purpose and duties of their organization.

The Auxiliary's emphasis this year has been on war activities. A large number of doctors' wives have received their diplomas in Home Nursing, and in case of emergency are equipped for duty. Others have responded to calls from the Red Cross for sewing dresses, making surgical dressings at the Walsh House, and donating blood to the Plasma Bank. Mrs. William C. Gwynn is in charge of receiving money and donations of warm clothing for "Bundles for America." Membership is one dollar per year, or ten dollars for a sustaining membership. Donations may be left at the Medical Society's building, 1718 M Street, N.W., marked for the attention of Mrs. Gwynn. A sum of $100 was voted for the Community War Fund.

Numerous charitable peacetime activities have not been neglected by the Auxiliary. Members assisted Mrs. Ernest E. Hadley in selling Christmas Seals at the Washington Trust Company during December. Ten dollars was contributed to the District Tuberculosis Association, $50 to the Washington Heart Clinic for Underprivileged Children, and $5 to the Children's Ward of Gallinger Hospital. The health magazine *Hygeia* is on sale by members during the months of December, January and February at one-half price. This is part of an educational campaign to aid the public in keeping physically fit.

Plans are under way to serve buffet suppers to officers in the armed forces once a month.

MRS. TOMAS CAJIGAS
Publicity Chairman

MEETINGS

Wednesday, February 10

The *Syphilis Journal Club* will sponsor the following program:

1. "Progress in Investigation of the Intensive Therapy of Syphilis," HARRY EAGLE, M.D., Johns Hopkins Hospital. HENRY H. HAZEN, M.D., will discuss the paper.
2. "Mobilization of Physicians in the District of Columbia for the Control of Venereal Disease," WILLIAM E. GRAHAM, M.D., Director of the Bureau of Venereal Disease, District Health Department.

Wednesday, February 17

The *Section on Gastroenterology* will present A. C. IVY, M.D., F.A.C.P., Professor of Physiology, Northwestern University School of Medicine, as the guest speaker. His subject wil be "Recent Physiologic Observations Pertaining to Therapy of Gastrointestinal Disease."

Wednesday, February 24

The *Washington Urological Society* has arranged the following program: "The Function of the Prostate and Its Relation to Tumors," CHARLES B. HUGGINS, M.D., Professor of Surgery, University of Chicago.

NEWS AND PERSONALS

The George Washington University School of Medicine is sponsoring a **Postgraduate Course in Ocular Surgery, Pathology and Orthoptics,** February 15–20. The courses in surgery and orthoptics will be held at the School of Medicine, 1335 H Street, N.W., and the course in pathology at the Army Medical Museum, 7th and Independence Ave., S.W. The fee for the course is $100, $25 payable with registration, the remainder payable on matriculation.

The list of instructors is as follows: Drs. William Thornwall Davis, Ernest Sheppard, E. Leonard Goodman, Walter J. Romejko, Ronald A. Cox, Sterling Bockoven, Richard W. Wilkinson, C. R. Naples and Frank D. Costenbader; Comdr. Clifford A. Swanson, M.C., U.S.N.; Col. J. E. Ash, M.C., U.S.A.; Capt. Alfred Golden, M.C., U.S.A.; Helenor Campbell Wilder, Lawrence P. Ambrogi, Louisa Wells, Elizabeth K. Stark, Debora Dicke and Dorothy R. Bair.

The District of Columbia Pharmaceutical Association issues a cordial invitation to members of the Medical Society to attend an open meeting, January 21, at 8:45 p.m., in the Medical Society's building. Major Louis A. M. Krause, M.C., U.S.A., Assistant Chief of Medicine, Walter Reed General Hospital, will speak on "Trends in Clinical Medicine and the Use of the Newer Drugs." Dr. E. Frank Kelly, Secretary of the American Pharmaceutical Association, will discuss "New Drugs Included in the United States Pharmacopeia and the National Formulary."

The second **Course for Physicians on the Medical Aspects of Chemical Warfare** will be held in the Society's auditorium on three successive Friday evenings, January 15, 22 and 29, at 8:30 p.m. Since the course will be similar to the first one, physicians who were unable to attend all the previous lectures will have an opportunity to hear those they missed. Certificates will be awarded to those who complete the course.

The Section on Neurology and Psychiatry presented the following program, January 7: "Shock Therapy in Certain Institutional Behavior Problems," Dr. Alfred K. Baur, St. Elizabeths Hospital; "Cranial and Abdominal Migraine—a Case Report," Drs. Robert H. Groh and J. Ross Veal.

The Washington Ophthalmological Society met January 11 at the Episcopal Eye, Ear and Throat Hospital. Dr. Bernard Samuels of New York City spoke on "Macular Disease," and Dr. Edgar Burchell, also of New York City, discussed "Paranasal Sinuses in Relation to the Orbit." Dr. Joseph Urban gave a case report on "Foreign Body of the Orbit—Self-extruded," and case presentations were made by Drs. Ronald Cox, Frank D. Costenbader, William Thornwall Davis and Ernest Sheppard.

The Clinico-Pathological Society met January 5 at the Kennedy-Warren Apartments. Dr. William H. Hough was host. Case reports were presented by Drs. Harry H. Kerr, Edwin A. Merritt and Bernard W. Leonard.

The Smith-Reed-Russell Society held its annual banquet in the Chinese Room of the Mayflower

Hotel, January 13. Dr. William Crane Johnstone, Professor of Political Science and Dean of the Junior College of George Washington University, was guest speaker. Honorary membership in the Society was conferred upon **Drs. Harry Ford Anderson, John L. Parks** and **John A. Washington.**

The American College of Surgeons has just released its 1942 publication, which lists 20 hospitals and clinics in Washington on its approved list. For high standards in surgery and graduate training for surgery, the list includes Emergency, Freedmen's, Gallinger, Georgetown and Providence; for training interns, Emergency, Doctors, Freedmen's, Garfield, Georgetown, George Washington, Providence, St. Elizabeths, Sibley and Washington Sanitarium; for residencies or fellowships, Emergency, Children's, Episcopal Eye, Ear and Throat, Freedmen's, Garfield, Georgetown, Homeopathic, Providence, St. Elizabeths, Sibley, Soldiers' Home and the Veterans Administration. Casualty Hospital was given provisional approval pending completion of improvement programs.

Cancer clinics in Garfield, Georgetown and the Veterans Administration institutions were also included among the 386 cancer clinics throughout the country which were given approval by the College.

The Association of Military Surgeons recently awarded the **Gorgas Medal,** for eminent contributions in the field of preventive medicine, to three retired military surgeons, two from Washington. Recipients of the medals and $500 checks were Brigadier General Jefferson R. Kean, U.S.A., 2804 N Street, N.W., Brigadier General Frederick F. Russell, U.S.A., Boston, and Rear Admiral Edward Rhodes Stitt, U.S.N., 1265 R Street, N.W.

The first Gorgas Medal was presented to Surgeon General William Crawford Gorgas himself in 1916, whose work in preventive medicine made possible the construction of the Panama Canal. The medal has now been reëstablished through the courtesy of the pharmaceutical house of John Wyeth and Brother of Philadelphia. General Kean is honored for his fight against yellow fever when he was Chief Surgeon of the Department of Western Cuba, and for the development of the Medical Reserve Corps. To General Russell has come recognition for his work in protecting the Army against typhoid fever. For many years he devoted himself to preventive medicine as professor in the Army Medical School, as Director General of the International Health Board, Rockefeller Foundation, and as professor at Harvard University. Admiral Stitt, a recognized international authority on tropical medicine, served in the Naval Medical Corps for 42 years, eight years as Surgeon General.

Captain William L. Mann, President of the Association of Military Surgeons, made the presentations December 15 during special ceremonies at the Cosmos Club, attended by many distinguished medical leaders. Mrs. Aileen Wrightson, daughter of General Gorgas, was present and received a courtesy medal.

Members of the Medical Society were invited to a **preview of the RCA "electron microscope"** at the National Press Club, December 16. This electron microscope, 50 to 100 times more powerful than any ever known, is capable of magnifying infinitesimally small particles more than 100,000 diameters. The story of the powerful instrument was told by Dr. Stuart Mudd, Professor of Bacteriology, University of Pennsylvania, and by Dr. R. Bowling Barnes, Director of the Physics Laboratory of the American Cyanamid Company, which purchased the first commercial electron microscope. Dr. Mudd is Chairman of the Fellowship Committee sponsored by the National Research Council to work with the new microscope.

The Children's Hospital has received a check for $1,500, completing the endowment of a room by the American Newspaper Women's Club. Mrs. Cordell Hull, wife of the Secretary of State, an associate member of the Club, presented the check.

Emergency Hospital, in accord with the recommendation of the District Health Department and the District Association of Hospital Superintendents, has reduced its customary eight-hour visiting period to three hours a day, from 2 to 4 p.m. and 7 to 8 p.m. J. G. Capossela, Superintendent of the Hospital, expressed the hope that the reduced number of visiting hours would eliminate the risk of bringing new infections to patients and would relieve the nursing staff of the extra work entailed by long visiting periods.

William E. Leahy, Director of Selective Service for the District of Columbia, was awarded the Distinguished Service Medal for 1942 by the Cosmopolitan Club. This award is made annually to the citizen who "has performed the most unselfish service in the community" during the year.

Mr. Leahy succeeded Brig. Gen. Albert L. Cox as Director of Selective Service in July 1941. He had previously served Selective Service as Chairman of the District Board of Appeals. Two years after beginning legal practice in Washington in 1913, he was appointed Assistant United States Attorney, which position he held until 1919, when he resumed private practice. Mr. Leahy was a member of the legal counsel that appeared in behalf of the Medical Society during the recent trial. He is President of Columbus University and served for some time on the staff of Georgetown University.

Drs. Walter Freeman and James W. Watts presented a paper on "Prefrontal Lobotomy: the Surgical Relief of Mental Pain" before the 15th Graduate Fortnight of the New York Academy of Medicine, October 22, 1942.

Dr. Edgar P. Copeland still carries Motor Vehicle Operator's Permit no. 5 issued by order of the District Commissioners, August 15, 1903. The permit states that Dr. Copeland is authorized to operate a motor vehicle powered by gasoline, and specifies that he "shall exhibit his . . . permit to any police officer or to any member of the Board of Examiners, when demand for such exhibit is made." H. M. Woodward was Secretary of the Automobile Board at that time.

Printed on the face of the card is the following statement:

> "In pursuance of Article 26, of the Police Regulations governing the operations of automobiles, locomobiles and motor vehicles, it shall be a condition of any permit granted as above, that the applicant agree that the Commissioners of the District of Columbia shall have the right to suspend or revoke the permit upon the recommendation of the Major and Superintendent of the Metropolitan Police Force and evidence submitted by him sufficient in the opinion of the Commissioners of the District of Columbia to prove that continuance of the permit is a menace to public safety. A fee of two ($2) dollars shall be charged for each and every permit issued under this provision."

Dr. William Thornwall Davis gave an address on "Military Ophthalmology" before the New York Academy of Medicine, January 18.

Dr. Wallace M. Yater addressed the New York Academy of Medicine, December 15, 1942, on the subject, "Eleven Years' Experience with Hepatosplenography."

Drs. Norman P. Scala and E. A. Spiegel (Philadelphia) presented a paper on "Response of the Labyrinthine Apparatus to Electrical Stimulation" before a joint meeting of the American College of Physicians, Section of Otolaryngology, Philadelphia, and the Philadelphia Laryngological Society, November 18.

Dr. James P. Leake spoke on "Vaccines and Serums: Indications and Administration" before the Fifth Annual Congress on Industrial Health, sponsored by the Council on Industrial Health of the American Medical Association, held at the Palmer House, Chicago, January 11–13.

Dr. George C. Ruhland discussed "The Role of the Public Health Nurse as She Works in the Official and Private Agency" before the Public Health Section of the Graduate Nurses' Association, January 4, at a meeting held in the National Archives building.

Dr. Winfred Overholser addressed the Washington Branch of the American Association of University Women, at a meeting, December 8. His talk related to problems of mental breakdown in wartime Washington.

Dr. Edgar A. Bocock, Superintendent of Gallinger Hospital, was honored by the hospital staff, December 15, and presented with a number of gifts to commemorate his fifteenth anniversary as head of the Hospital. Dr. Bocock recalled that 15 years ago the Hospital could accommodate but 200 patients; when the building now under construction is completed, the Hospital will be able to care for approximately 1,600 patients.

Dr. V. L. Ellicott, Health Officer for Montgomery County, Md., described the work of the Montgomery

Health Lay Council at a meeting of the Silver Spring Woman's Club, January 6.

Dr. Neal Hamilton Fairley, Consulting Physician in Tropical Diseases at Cambridge University, England, discussed "Malaria" before the faculty and students of George Washington University School of Medicine, December 19. Dr. Fairley holds the rank of Colonel in the Australian Army Medical Corps. **Dr. Paul D. White** of Boston addressed a similar assembly, January 9, on the subject, "Cardiac Problems in Wartime."

The Winthrop Chemical Company received recognition, December 17, as anti-Axis fighters, when it was awarded the Army-Navy "E" flag. Dr. Morris Fishbein of Chicago, who acted as master of ceremonies for the presentation, gave special tribute to the Winthrop Chemical Company for its production of Atabrine, a synthetic substitute for quinine in the treatment of malaria. Nearly 100 different drugs are furnished to the armed forces of this country and the United Nations by this firm. In addition to Atabrine and Plasmochin, such sulfa drugs as Neoprontosil and Sulfathiazole are produced. Another drug of interest at present is Naphuride, used in the treatment of African sleeping sickness, a disease rare in this country but which has assumed great importance now that our troops fight in the tropics.

BOOK REVIEWS

Clinical Anesthesia. John S. Lundy, B.A., M.D., Head of Section on Anesthesia, Mayo Clinic; Professor of Anesthesia, Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota; Diplomate and Member of the American Board of Anesthesiology, Inc.; Member of the Subcommittee on Anesthesia, National Research Council. Pp. 771 with 266 illustrations. Price, cloth, $9.00. Philadelphia: Saunders, 1942.

Dr. John S. Lundy, Professor of Anesthesia, Mayo Clinic, is well known in medical circles, a pioneer in his specialty and an experimenter of note.

In a chronological table wherein Long, Morton, Corning, Braun and Eicholtz in the early years of anesthesia are outstanding, Lundy in the latter years is preeminent.

The book is written in bold, clear type, profusely illustrated and tabulated. Grammatically, no Wilsonian sentences grace its paragraphs. The language is simple and direct. By no means a primer, it is meant for experienced medically trained anesthetists as a reference for complications arising in their specialty. The once simple application of a face mask and pouring on of ether has taken on such a complexity that only a man of Lundy's ability, and in the circumstances in which he is placed, could keep pace with all its vagaries.

The subject is covered completely and adequately, but the arrangement gives one a sense of obscurity and disjunction. His experience of over a quarter of a century is striking in that he has coped with and surmounted every anesthetic obstacle.

One closes the book with a timorous and wholesome respect for things anesthetic.

John J. Mattare, M.D.

Manual of Standard Practice of Plastic and Maxillofacial Surgery. Military Surgical Manuals I. National Research Council. Pp. 432, with 259 illustrations. Price, cloth, $5.00. Philadelphia: Saunders, 1942.

This text is a highly valuable source of professional information for any surgeon desiring a knowledge of plastic procedures. It is not a text designed for the casual surgeon nor for physicians without surgical training. The entire book is a terse commentary and has reduced plastic procedures about the face and head almost to the point of mathematical precision. This, I believe, lessens its effectiveness because at times the brevity of the description of the procedure makes it confusing. The entire head and face is divided into its various parts and each is dealt with systematically. First the deformity is described and then the procedure required. Frequently the area from which skin and fascia can be taken is recommended and if the operation is one of stage, the various stages are described and the time elapsing between each stage is recommended. The chapter dealing with Blepharoplasty is especially good and the description and illustrations are excellent. Surgeons in the military service and those doing traumatic surgery in lay practice should have this book. It has been edited by the Subcommittee on Plastic and Maxillofacial Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, and by representatives of the Medical Department, U. S. Army. Among this group are outstanding plastic surgeons in the United States.

P. A. C.

Abdominal and Genito-Urinary Injuries. Military Surgical Manuals III. National Research Council. Pp. 243. Philadelphia: Saunders, 1942.

This brief but complete text offers the practicing surgeon or the army surgeon an excellent practical review of the important surgical principles and technic in traumatic abdominal and genitourinary injuries. Many debatable points are not discussed but this is to be expected in a short text. The chapter on Do's and Don'ts is a presentation of the important diagnostic and treatment methods for genitourinary diseases. The reviewer has to advantage used the outline form of presentation for teaching these subjects to students.

LESLIE TANQUARY RUSMISELLE, M.D.

(1887-1942)

Dr. Leslie Tanquary Rusmiselle, an Active Member of the Medical Society of the District of Columbia, died December 26, 1942, at his home, 644 F street, S.W. He had been in ill health for almost a year.

Dr. Rusmiselle was born at Lebanon Church, Shenandoah County, Virginia, July 21, 1887. He graduated from the College of Physicians and Surgeons of Baltimore in 1913, and practiced for several years in Lovettsville and Waterford, Virginia, before coming to Washington. During the first World War he served for 18 months in the Army Medical Corps with the commission of Major. Stationed first at Fort Oglethorpe, Georgia, he was later appointed Chief of Medicine at the base hospital at Camp McClellan, Alabama. For the past 18 years he had practiced medicine in the District of Columbia.

He has been an Active Member of the Medical Society since 1926. He also held membership in the American Medical Association and in the Virginia, Maryland and District of Columbia Medical Society.

Surviving are his wife, Mrs. Sara Rusmiselle, a daughter, Mrs. Ruth Lee Campbell, and a grandson, all of Washington.

JOHN LEWIS RIGGLES, M.D.

(1877-1942)

Dr. John Lewis Riggles, gynecologist and obstetrician, died December 8, 1942, at his home, 4007 Connecticut Avenue, N.W., following a long illness.

Dr. Riggles was born in Washington in 1877. After attending the Columbus Preparatory School, he graduated from the Department of Medicine of Columbian University, now George Washington University, in 1900. He engaged in general practice for a few years before specializing in the field of gynecology and obstetrics. In addition to his private practice he was Associate Gynecologist at George Washington University Hospital, resigning from the Hospital staff in 1914. Ill health forced him to retire from practice a few years ago.

Dr. Riggles became a member of the Medical Association of the District of Columbia in 1901 and held membership in the Medical Society of the District of Columbia until 1922.

Mrs. Caroline Honodel Riggles survives her husband, together with two sons, John Lewis Riggles, Jr., and Richard Francis Riggles, all of Washington, and a brother, J. Richard Riggles, Jr., of New York.

(Continued from page 11)

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(Continued from page 14)

parturient women to surroundings which provide facilities for delivery under conditions such as prevail in ordinary times.

Doctors and obstetrically trained nurses should be at designated stations throughout the period of air raids and should be relieved of duties incident to the emergency other than the care of pregnant women.

Treatment of missile wounds of the abdomen and uterus during pregnancy should be in accordance with established surgical procedures and obstetrical judgment.

If poison gases are employed protection must be available for the newborn babies.

1835 Eye Street, N.W.

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(Continued from page 32)

which will in turn get in touch with the secretary of the boards concerned, or if necessary, with Mr. L. P. Steuart, Chairman of the War Price and Ration Board in the District.

Mr. Whitney Leary, OPA Director for the District of Columbia, has assured the Society that physicians will receive sufficient gasoline to carry on their practices, whatever changes in regulations may occur. He has emphasized that such gasoline as is granted for professional purposes must not be used in any other way.

MEDICAL ANNALS
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CASUALTIES AND MEDICAL PROBLEMS OF TANK WARFARE*

DANIEL L. BORDEN, M.D., F.A.C.S.
Colonel, Medical Corps, United States Army; Professor of Clinical Surgery, George Washington University School of Medicine

THE American tank, manned by American crews, has, for the first time in history, met its baptism of fire. Today the mission of destruction has called upon the ingenuity of man to develop and operate mechanized units equipped with the latest design of engine, gun and armor. The foot soldier, with his pack and gun, has a vanguard of steel to prepare his way. Mechanization on land, sea and in the air is the foundation of modern war, but mechanization calls for human guidance and man finds himself subject to all the mental and physical hazards incident to the increased tempo set up by our mobile armored forces.

Casualties and medical problems, involving training and combat, as they relate to tanks, cover a tremendous and, in some respects, a virgin field. For a critical analysis of American tanks used in combat I have turned to the British Military Staff in the United States. In British hands we have a test tube of experience that has demonstrated the performance of our most recent tank development. For the many problems incident to training, selection of tank personnel, morale program for tank troops, technical details of the tank itself, and finally, the relation of the Medical Corps to mechanized units, I am indebted for valuable information to the Office of the Surgeon General; the Commanding General and Medical Officers of the Armored Force Medical Research Center at Fort Knox; the Commanding General, Carlisle Barracks; and finally, the officers of the Office of the Chief of Ordnance, United States Army. To understand the medical phase of tank warfare, it has been necessary to resort to available data to correlate cause and effect as they relate to man and tank.

The tank, now an accepted instrument of war, is a mobile, armor-protected, concentrated source of fire power that has, to a large extent, displaced the old cavalry units. In fact, it is often referred to as the motorized cavalry. The tank has come a long way since its first appearance on September 15, 1916 in World War I, when it was introduced by the British, who recognized the potential possibilities of the caterpillar tract in combatting trench defense.

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* Read before the Medical College of Virginia, December 10, 1942.

To the average American the tank presents a challenge that appeals to our national mechanical trend of mind. Mechanization, to use a slang term, is "right up our alley." From the original slow tread of 4 miles per hour our modern tanks now develop a speed of 30 miles per hour. But increased speed and added protection call for an ever-changing schedule as it applies to the medical care of tank casualties. To this end the military surgeon faces many new problems, both in training as well as on the field of battle.

The tank, with its all-metal chassis and body, with no resistance to heat or cold, its belly containing a high speed combustible engine, inflammable fuel oil, electric wiring, ammunition, hand grenades, smoke bombs, Verey cartridges, batteries, radio, alcohol compass, and firearms, together with a thoroughly trained human crew, forms a unit of great potential power. In spite of its protection, the tank is vulnerable to training and war casualties.

The selection of tank personnel involves many physical qualifications necessary to efficiency. Army regulations do not qualify or set up any standard for the selection of troops for tank service. To maneuver in limited tank space, it is recognized that a man must be of an average physique, not too tall or too heavy. The best men have an aggressive, courageous mental attitude, well supplied with "intestinal fortitude." They must be of troop age (the younger, the better) and physically qualified for full military duty. Aside from an excellent physique, candidates must be mechanically-minded with a better than average endurance to changes in temperature. They must be free from all allergic dust reactions, for tanks, at times, practically eat dust. Tanks not only must advance into dust clouds developed by other tanks, but they create enormous dust bursts by the explosive effect of their own batteries. The dust or sand hazard attacks man and tank alike. For man, the dust mask has been devised; for the tank, the sand filter is provided. Man and engine demand clear air.

No man with a tendency toward claustrophobia is adaptable to tank warfare. This is self-evident, for a tank in action is a closed unit. To combat the normal tendency in all men toward mild claustrophobia, means of immediate escape from tanks in the event of emergency must be provided. Tank exits, turrets and manhole covers are subject to jamming when injured by gun fire; also, the tank itself may turn over on its side or on its back, thus obstructing the usual means of escape. Anticipating this possibility, the newer designed tanks, now under construction, are provided with an escape exit hatch in the floor of the tank. Dependable fire power with armored protection provided with avenues of escape establish, in training crews, complete confidence in the tank. This is essential in building up morale for a strong fighting unit. To this end our country, peculiarly fitted with a mechanical trend of mind, builds the best tanks in the world. The American tank soldier knows this. He must live and breathe this conviction.

Defects leading to casualties in the older types of tanks have been overcome by recent designs eliminating war-proven weaknesses. In older models, the shearing of a bolthead upon sudden impact of an exploding projectile against a tank caused the loosened bolthead within the tank to become a secondary flying missile involving risk to the tank personnel. Welding of tank bodies has eliminated the use of rivets. Further, it has been noted that the impact of a projectile generates heat at the site of impact. This may result in flacking or chipping of metal or paint, burning or injuring the tank crew, and it may even ignite any inflammable material within the tank. Changes in tank design have eliminated flat surfaces and angles to a large extent, substituting in their place curves and rounded surfaces to prevent a flat target from receiving a sustained direct hit. Ricocheting of a projectile has thus been encouraged. A direct hit thoroughly implanted against a tank may produce, in itself, severe shocking effect although the missile does not actually penetrate the armor. Transmission of direct force subjects the tank crew to possible injury. Especially is this true of the man with his eye applied to the telescopic aiming device. A man with his eye centered on the periscope, with its implanted telescope, maintains a rigid neck to steady his vision. A shock from striking an obstacle, or sustained as a result of a direct hit by a projectile, transmits to a rigid, fixed muscle-bound neck, a force productive of muscle strain or possible cervical fracture. A tank will absorb the shock of machine-gun spray, but the bullets, upon contact with the resisting tank armor, break up into fragments, splattering pieces of shrapnel in every direction. In this manner a fragmented machine-gun bullet may find its way into any opening of the tank.

In this connection it is of interest and extreme importance to recognize that an evacuated tank presents a target with definite ricochet possibilities. A crew seeking shelter behind a tank is subject to the greatest danger. A high premium is placed upon a tank and its trained crew. Their extermination is of great value to the enemy. This is a recognized fact substantiated by actual war experience. A projectile directed at the tank, making a hit, fractures and sprays its fragmented parts in all directions. Anyone in the immediate neighborhood of a tank under fire is in imminent danger. Ground protection is safer than the illusionary security of a stationary, abandoned tank.

Excessive heat in tanks presents a serious medical problem. Temperature changes within a metal tank may be very great. It is recognized that as the air becomes warm the body depends upon the evaporation of moisture from the skin to control body temperature. The amount of moisture in the air, therefore, becomes of the utmost importance. Body tolerance to heat is reached or approaches a danger point at a wet-bulb reading of 80°F. in still air. Air in motion increases the critical wet-bulb reading, so that crews in tanks that are in motion can function with a relatively high wet-bulb reading. Circulation of air in tanks is provided by the engine fans so that a tank in motion or at a standstill with its engine running will create enough draft to eliminate any serious danger of heat exhaustion. High temperatures experienced in desert fighting have been withstood because of the low humidity concentration which results in rapid evaporation of moisture from the skin. It is an amazing commentary that few cases of heat exhaustion have been reported from the British Tank Warfare in the Middle East. Reports of heat fatigue from prolonged desert fighting have come to our attention. Heat fatigue, often associated with mental exhaustion and strain, has caused the British to resort to its time-honored navy tradition of issuing a measured rum ration to tank crews subject to prolonged battle conditions. The British have observed that, conditions permitting, tank crews should not be subjected to more than one week of active fighting.

To sustain and increase body resistance to extreme and prolonged heat, the intake of water and food becomes essential. It has been noted, clinically, and is, I believe, an established fact that food increases tolerance to extreme temperature. Tanks are not adaptable to carrying elaborate provisions of food, but the essential concentrated articles of subsistence as provided in the K ration can be assimilated in prolonged warfare. The British have found that tank crews long deprived of their hot food resort to the use of the so-called "desert stove," a portion of fuel oil poured into a hole, mixed with sand, and ignited. This emergency stove has been universally resorted to in the absence of any other means of heat for cooking food.

Burns in tank training are relatively rare although they do constitute a large percentage of the casualties in tank warfare. Particularly has this been true with the British forces in desert fighting where the desert heat has forced the wearing of reduced clothing, thus exposing large areas of the body to the blast or flash effect of exploding shells. These shells, exploding upon contact, shoot their spray of fire into any existing or fractured openings in the tank armor, producing first or second degree burns of exposed areas of skin. The Navy experienced the same type of flash burns in their personnel exposed to shell fire at Pearl Harbor. Statistically, the British show that burns constitute 27 to 30 per cent of their tank casualties. The more serious type of burns sustained within a tank result from the explosive action of a penetrating projectile igniting gasoline or ammunition. Complete incineration is inevitable in some cases.

Direct exposure to gunfire is always a possibility in tank warfare. Commanders of tanks occasionally find it expedient to risk the danger involved in protruding their heads out of the tank turrets. Although their heads may be protected with the modern bullet-proof helmets, they obviously present targets with grave risks of injury. Tanks maneuvering in dust, gun bursts of dust, smoke, turning, twisting, in the excitement of battle, must depend upon their periscopes for vision and orientation. Destroyed, clouded, or oil-smeared periscopes may demand that the commander drive with his head out of the turret, thus exposing himself to shellfire. Technically this is contrary to better judgment; practically, it may, and has at times become a necessity. In our modern tanks periscopes may be cleaned or replaced if destroyed, but battle conditions call for immediate action. Grave risk is a part of war. There is no "time out" period on the battlefield.

Our newer tanks are far more soundproof than the older design; however, engine and tank noise still does not permit of audible conversation. Communication is carried on by a prearranged and practiced touch system or by the use of intercommunicating phones with attached throat-transmitting microphones. Sound deafness, temporary in nature, presents an annoying problem to some tank crews. This results from engine and tank roar aggravated by continuous gunfire within a closed resounding compartment. This deafness usually lasts two to three days, a condition that may be alleviated to a degree by cotton plugs inserted into the external ear canal.

The statistical study of wounds incurred in tank fighting in the Middle East is interesting and indicative of general expected principles. Of all injuries, approximately one third have been burns; also, it is to be noted that one third of battle casualties in tank crews have occurred outside the tank, where men have been caught near a disabled or abandoned tank or have been surprised while near but not within the tank. The great majority of shrapnel or gunshot wounds have involved the extremities, head and chest, in the order named. The abdomen has been relatively free from injury. The accompanying chart submitted by the British service tabulates their statistics of tank wounds (fig. 1).

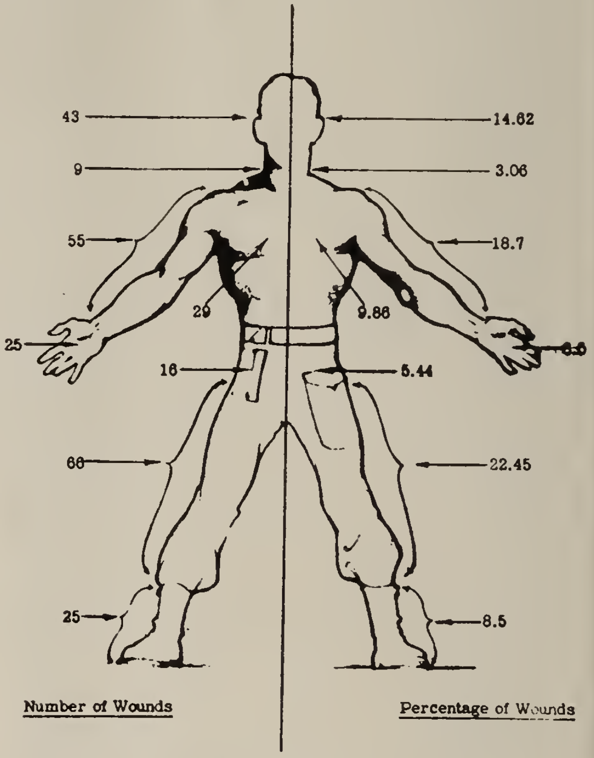

Fig. 1. Wound location chart for armored units in the Middle East (British).

My own experience at Fort George G. Meade, where I observed and treated men injured in tank maneuvers, parallels the type of casualties seen at Fort Knox and reported to me by Colonel A. L. Gorby, Surgeon of the Armored Forces. Colonel Gorby has covered the phase of training casualties so well that I quote his statement verbatim: "Despite the large amount of activity with tanks, we have surprisingly few injuries. . . . The most frequent injury we see is loss of the distal phalanges of the fingers by crushing due to sudden slamming shut of the turret door or the heavy door in front of the driver and assistant driver. This hazard has apparently been eliminated in the newer tanks, but it still occurs here as some of the older tanks are used in teaching new drivers. Contusions of the chest, abdomen and soft tissue occur frequently due to sudden stoppage of the tank at the bottom of a ditch or against a trap, but these are usually of a minor nature and do not require admission to the hospital. The ones we have seen in the hospital have stated that the tank was not equipped with a safety belt. Fractures have been infrequent except in the case of fingers. An occasional case of a small tree which failed to be knocked down and has entered through a port hole has caused fracture of the lower extremity of the observer riding in the turret. Most of the head injuries have been the result of slipping on wet or muddy tanks while mounting or dismounting. Burns are rare, and at the present writing I cannot recall a case of burn which was incurred inside a tank. Gunshot wounds have happened in tanks and the few we have seen have been the result of dropping a 37 mm. case which contained a .22 caliber shell for practice firing. The casing striking some sharp corner inside the tank causes the shell to fire, and the gunner usually gets shot in the lower extremity. Fatalities are not common and usually involve turning over of a tank with someone being pinned either in the turret or beneath the tread or between two tanks as occurred in one unfortunate instance."

At Fort Meade, we had an occasional burn from accidental contact with a heated exhaust pipe. Also, fractures of the extremities were seen in conjunction with the usual run of traumatic injuries incident to activity in and around any mechanized vehicle. Incidentally, it was noted that all tank personnel had a very high morale rating with a better than average incidence of intelligence. These men were anxious to return to their units—always a good sign of high morale.

Until recently our tank force, under American supervision, has had no actual warfare experience. We are now in the process of tank fighting, in American tanks manned by American crews. The experience gained by combat with the enemy will be invaluable. One of our big problems from a medical point of view is the evacuation and treatment of the wounded in a mechanized theater of war. All tank crews are supplied with and instructed in the use of the first aid kit. In addition to the usual standard equipment there is added, for battle emergency use, morphine tube containers (morphine "Syrettes") protected with sterile caps ready for instant use. The Navy, under combat conditions, has demonstrated the value of the ready-to-use morphine hypodermic. In keeping with the lesson that they learned the hard way, they supply all parts of their ships with this "sheet anchor" of succor. The free use of morphine in ample doses ($\frac{1}{2}$ grain) is not only indispensable in evacuating the wounded from tanks but it makes possible the control of great physical as well as mental suffering during periods of enforced inactivity. The British have gone a step further and supply their tanks with 4 c.c. ampules of chloroform incorporated in a gauze pad.

Evacuation of the wounded from tanks is a science in itself and has been the subject of extensive research by our Armored Force. Because a disabled tank is a target for enemy fire, its immediate evacuation and desertion for ground protection is imperative. Amazing as it may seem, the British have found that a severely wounded man, apparently helpless, will evacuate his tank unaided, unless he is unconscious. The imperative urge to get out and away from a known hazard is so great that the mind automatically surmounts physical disability.

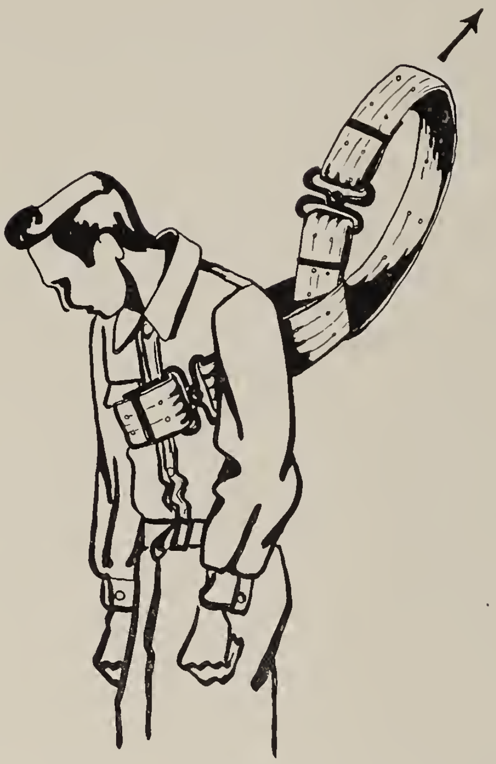

FIG. 2. American plan of evacuating wounded from tanks by using the web pistol belts (Carlisle Barracks).

Evacuation of the wounded and dead from tanks presents great difficulty. The British method of removing helpless men from tanks is fully described in the Army Information Bulletin no. 17 entitled "Removal of Wounded from Tanks." In general, men wounded below the waist are removed by a sling carried under each arm (fig. 2). Those injured above the waist are extracted by a sling carried under the crotch (fig. 3). Whatever method is used, unless handled manually, it may be necessary to apply a head band to protect the head from falling forward and obstructing the body at the tank opening. Actually, in tank warfare, where the occasion demands immediate action, it has been found that the wounded are pulled out of the enclosure by tying the feet together with a half hitch and hauling away. A badly injured man who must be man-hauled may be given, by inhalation, a 4 c.c. ampule of broken chloroform within a gauze pad until he is unconscious. This is a quick, simple, although drastic measure, that clamps concentrated chloroform over the nose and mouth for immediate results. Three to four seconds and your man is out. He may then be manipulated without pain and with lessened shock. Evacuation of the wounded from a tank under fire is a matter of speed. You cannot compromise with bullets.

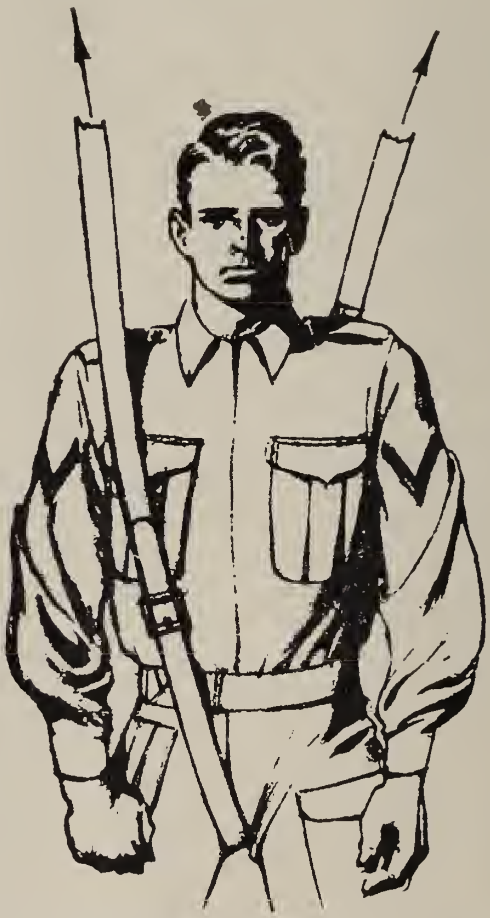

FIG. 3. British method of evacuating wounded with injuries above the waist.

The American Armored Force Board, in its report, rejects in part the British sling method of removing disabled men from tanks. It retains the "Inversion Method," already described and used by the British, where the wounded man is removed feet first, as efficient, quick and applicable to all hatch and turret openings in any and all tank models. The Board calls attention to removing the wounded by way of the floor hatch now being installed in the latest medium M-4 and M-5 light tanks. This can be accomplished by removing the hatch, placing a litter under the tank, and evacuating the wounded man directly on to the litter. It is also most useful as an exit in an overturned tank.

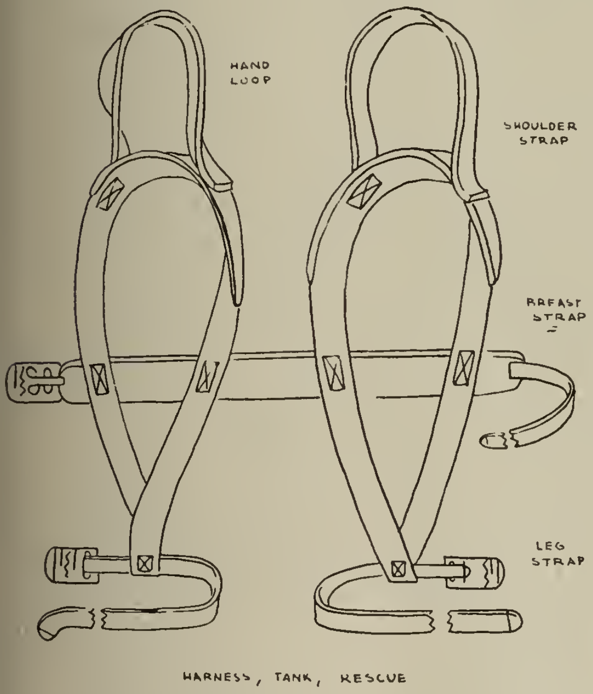

FIG. 4. Harness devised to evacuate wounded from tanks (Carlisle Barracks).

The pistol belt-suspender method employed by our Army is an elaboration of the sling method used by the British. In general, it gives greater security by calling into use equipment issued to tank crew personnel including the pistol belt, suspender belt, and safety belt (fig. 4). The use of two web pistol belts is ingenious and satisfactory. One belt is slipped up under the armpits, tightened, and used as a sling. A second belt, rope or litter sling is then carried between the back of the sling and the man's body. This makes a most satisfactory hoisting device except in cases of chest injuries. Litter slings for evacuating the wounded from tanks can be used to advantage. Other methods of removing the disabled from tanks are described but are still in the experimental stage. Evacuating tanks of the wounded becomes an individual problem that must be solved by any method that will accomplish the purpose in view of the circumstances (fig. 5). Preservation of life is of primary importance. To this end determined action is excusable and commendable.

The removal of men killed within a tank presents a most difficult problem especially if rigor mortis has set in. Invariably the dead man is fixed in a crouched position that will defy all efforts to extract him through the narrow turret. Occasionally drastic measures must be resorted to, if the tank is to be cleared.

It is not within the scope of this paper to discuss fully the problems facing the battalion and regimental surgeon in his relation to the tank units. However, it is a definite and most difficult task to maintain medical contact between swiftly moving motorized units. This is self-evident. Radio communication is of the utmost importance. The British have stressed this, time and time again. It is essential that the battalion surgeon has at his command a radio-

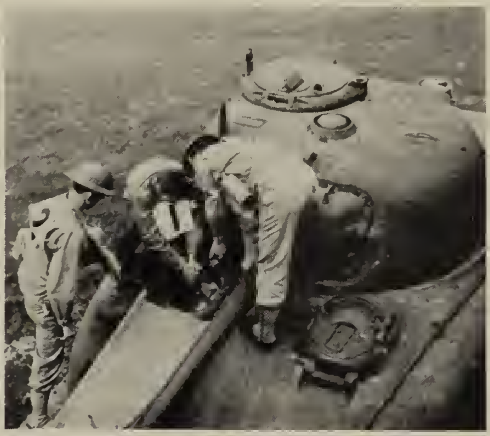

FIG. 5. Peacetime evacuation of driver from tank (Carlisle Barracks). Note difficulty of evacuation.

directed armored car or a half-track protected ambulance capable of accommodating stretcher and sitting cases. It is also necessary that there be a clearing station where, in keeping with the method used by the German Army, provisions should be made for returning wounded men in airplanes that have emptied their supply load and are returning to their base. Modern warfare is being carried out on a rapidly advancing scale with speed, force, endurance and terrific fire power which calls for heretofore unheard-of medical service. An appreciation of the tremendous potential possibilities of the tank as a fighting unit will help the military surgeon maintain the rapid pace of modern warfare. Today we face a changing, quick, brutal destruction on a mass scale. The tempo of war demands a heavy, exacting, resilient and aggressive effort of the Medical Department of the United States to meet the demands of a mechanized war machine. To this end, training of the Medical Corps will involve a complete and thorough understanding of tank tactics, of the methods of removing wounded from tanks, and of all of the technical details related to the motorized corps. In other words, the Medical Department today must go a step further than that associated with the care of the sick alone. It involves the responsibility of being familiar with methods of communication, map reading, motor maintenance, identification of hostile aircraft and vehicles, and courage to work intelligently under fire. The training of the Medical Department personnel stationed with the motorized corps involves a special schooling if a high degree of efficient service is to be rendered. Every medical officer must be prepared to meet all eventualities with an initiative and resourcefulness far beyond that required in the older type of infantry tactics. In order to accomplish his purpose the military surgeon attached to tank service must be prepared to be a mechanic, with a crowbar for his instrument of approach; a soldier, to face fire, shells, gas and bombs; and a minister of the healing art, who can work coolly and intelligently under the stress of grave danger.

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Sulfonamide drugs replacing serum in cerebrospinal fever treatment. The increased incidence of the one-time highly fatal disease, cerebrospinal fever, associated with war is beginning to manifest itself, *The Journal of the American Medical Association* for February 13, 1943, says in an editorial which points out that serum treatment, alone or in conjunction with the sulfonamide compounds, is being replaced with drug treatment alone, with highly effective results. The acute infectious disease also is known as meningococcic meningitis. *The Journal* says:

"The current increase in the number of cases of meningococcic meningitis in various parts of the country, which was to be expected in view of the military and industrial mobilization, has emphasized recent advances in the treatment of the disease. These improvements depend almost wholly on the use of the sulfonamide compounds. Until recently many clinicians experienced in this disease advised combined treatment with some form of antiserum and a sulfonamide compound at least for the more serious cases. . . . Accumulation of data seems now to show that drug treatment alone will bring better results than combination with such an agent as foreign serum, which, even when given intravenously, may initiate a considerable number of reactions.

"In England, for example, a statistically adequate number of patients treated with serum alone gave a fatality of 36.6 per cent as a whole. Of those under 1 year of age 67.2 per cent died, of those from 1 to 4 years 38.6 per cent and of those from 5 to 14 years 22.7 per cent. With sulfonamide compounds plus serum, of those under 1 year 32.5 per cent died, from 1 to 4 years 16.5 per cent, from 5 to 14 years 8.4 per cent, from 15 to 24 years 4.3 per cent, from 24 to 44 years 14.1 per cent and 45 years and over 32.3 per cent, with a total fatality of 13.8 per cent. Treatment with sulfonamide compounds alone gave better rates in each age group: under 1 year 22.4 per cent, from 1 to 4 years 12.3 per cent, from 5 to 14 years 5.5 per cent, from 15 to 24 years 2.5 per cent, from 25 to 44 years 6.6 per cent and 45 years and over 28.8 per cent, with a total fatality of 9.2 per cent. Aside from the rare and practically always fatal cases of Waterhouse-Friderichsen syndrome . . . the prompt diagnosis and early vigorous treatment, preferably with sulfadiazine, will save cases which had fatal prognosis with serum therapy, and in practically all cases recovery is much more prompt.

"Other sulfonamide compounds may be used instead of sulfadiazine, including sulfathiazole, which was formerly held to be less effective because it was less uniformly excreted into the cerebrospinal fluid. . . ."

MEDICAL ASPECTS OF CHEMICAL WARFARE

I. Decontamination*

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MY SUBJECT is: What to do about it, or How to get rid of it.

Decontamination is a process by which a chemical agent is partially or completely neutralized, destroyed or removed. As the term is used here it applies to the neutralization of war gases or vesicant liquids.

Chemical Agents

The chemical agents which are most likely to be used in an attack upon centers of population and which are, therefore, of greatest decontamination concern are the persistent gases, the vesicants (or blister gases). The most common vesicant agents are mustard gas, lewisite and ethyldichlorarsine. Since they contaminate the area where they are sprayed or dropped and give off their dangerous vapor for days or weeks unless neutralized, it is important that chemicals to do this work and equipment to apply them be at hand, and that trained personnel be set to work promptly.

Nonpersistent agents normally dissipate rapidly (in 10 minutes in the open), but some will contaminate food and corrode metals. However, contaminated food is usually discarded, and the corrosion of metal is prevented by cleaning with oil.

Decontaminating Materials

The following decontaminating materials may be used:

1. Earth. Earth, sand, ashes or sawdust may be spread over a contaminated area to give temporary protection. The covering layer should be at least 3 inches thick. This does not destroy the chemical agent but forms a seal preventing the escape of a dangerous concentration of toxic vapor. Such covering will be more effective if wetted down with water.

2. Water. Water will destroy lewisite as such, and rapidly enough to be used extensively for decontaminating lewisite. The reaction product of lewisite and water is a nonvolatile substance which is a vesicant on direct contact with any part of the body. After decontaminating lewisite with water, the area should be covered with a layer of earth to prevent contact with the solid substance, if practicable. Mustard gas hydrolizes so slowly that water is not practicable for decontaminating this agent.

3. Aeration and Weathering. Aeration and weathering are two forms of "natural" decontamination. These methods depend upon favorable meteorologic conditions, and ordinarily are too slow to be considered as normal processes of decontamination.

4. Incineration. Incineration, or burning, may be considered as a practical method of decontamination when circumstances and conditions permit. This method is often applied in the case of contaminated food or clothing.

5. Solvents. Solvents such as gasoline or kerosene can be used to remove excess vesicants from metal or nonporous surfaces. These solvents do not destroy the chemical agents but dissolve them so that they may be removed more readily.

6. Chloride of Lime. Chloride of lime (or bleach powder) is the most important of all decontaminating agents. This material renders the vesicants harmless when brought into direct

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contact in sufficient quantity. Chloride of lime is used in two ways, as a dry mix and as wet mix. Dry mix consists of equal parts by weight of chloride of lime and earth or sand. The wet mix consists of a 50-50 mixture of chloride of lime and water by weight. Such a mixture is known as slurry and is the most commonly used of all decontaminating materials. It is usually applied by the spray method and can be used effectively to decontaminate streets, roadways, buildings, trees, terrain, etc. This agent is very corrosive to most metals and to cotton fabrics, and, therefore, should not be used where this corrosive action will cause excessive damage to materials and equipment. If chloride of lime is not available, ordinary slaked lime may be substituted with equal effectiveness.

7. *Noncorrosive Agent.* The noncorrosive agent is prepared by mixing 1 part of a special white powder to $6\frac{1}{4}$ parts of acetylene tetrachloride by volume. This agent will be used principally for the decontamination of equipment, such as motor vehicles, airplanes, machinery, leather, etc., where corrosion, or other serious damage might result from the use of chloride of lime.

METHODS OF DECONTAMINATION

Chemical warfare will in all probability come to civilian populations in the form of the liquid vesicant agents sprayed from airplanes or included in high explosive bombs. For strategic reasons the areas affected will be thickly populated communities of urban districts. Since mustard gas, lewisite and ethlydichlorarsine are persistent gases, giving off their dangerous vapor for days or weeks, it is necessary that gassed areas be decontaminated as quickly as possible to prevent casualties. This is the work of decontamination squads consisting of trained personnel equipped with protective clothing and gas masks. The best protection is afforded by clothing impregnated with chlorine. Impermeable clothing may be worn, but it does not let out heated air from the body and therefore can be worn for only limited periods of time. Protection must be afforded to every part of the body. Gassed areas must be evacuated and marked with warning signs.

1. Streets, sidewalks, trees and surrounding terrain are decontaminated with slurry, which is best applied by sprays. The United States Army uses a truck-mounted unit carrying a 300-gallon tank equipped with pumps and sprays. Two men ride the front fenders, spraying slurry in advance of the truck, thereby decontaminating the roadway and preventing contamination of the truck wheels. Other sprays are used from the sides of the truck to decontaminate surrounding shrubbery and terrain. One tank load can cover a gravel road 8 yards wide for a distance of 200 yards. With concrete or other smooth surface roads, a larger area can be covered. For heavily contaminated areas as much as 4 pounds of slurry per square yard should be used. One tank load will cover an area of approximately 800 square yards in such cases.

If lewisite is sprayed on a road it may be destroyed by hosing it down with water. The resultant product will be an arsenic compound which is poisonous and must be washed away.

If lewisite and mustard are mixed, slurry will destroy both.

2. Shell holes and small ground areas may be decontaminated with dry mix, which should be worked thoroughly into the ground so that the lime comes into direct contact with the liquid gas.

3. In general, if liquid vesicants have been carried into buildings, the buildings should be abandoned. However, important installations of buildings can be decontaminated with slurry. Concrete and wooden floors should be covered with slurry by means of brooms, and left on the floor for at least 24 hours. The slurry is then removed by scrubbing the floor with water, preferably hot soapy water.

Walls and ceilings may be decontaminated by spraying or swabbing with slurry. For such work a 3-gallon pressure type spray may be used, which may be an adaptation of the ordinary commercial type insecticide sprayer. As in other cases when lewisite alone is present, water is an effective decontaminating agent, but the resulting arsenic compound must be washed away.

4. Greasy or oily metal surfaces of vehicles, instruments, etc. which have been contaminated should be cleaned with the solvent agents, gasolene or kerosene, applied with rags. The very thin coating of mustard which will remain is then destroyed by spraying with the noncorrosive agent. In using the noncorrosive agent, contaminated surfaces should be given two or three moderate applications of the solution, preferably by spray, at intervals of 15 to 20 minutes. After this agent has evaporated (about 30 minutes) the entire object should be scrubbed down with soapy water, then rinsed with clear water, and thoroughly dried. Metallic surfaces should then be given a light coat of oil or grease to prevent rusting.

5. Decontamination of persons may be considered as first aid or prophylactic treatment, since its objective is to prevent gassed individuals from becoming casualties. This is the physicians' realm.

Before treating or transporting gas victims, medical personnel must apply to themselves those individual or collective measures which are necessary for their own protection, or they themselves will become casualties. When working in gassed areas they must wear the same protective clothing and gas masks as required by personnel of decontamination squads. This is not essential for those working in decontamination stations, but they should wear rubber gloves and take all precautions to avoid contamination.

In the decontamination of a gassed individual, I want to stress most the element of time. Whatever may be the pros and cons regarding this factor in other theatres of war, time is definitely not on our side on this battle front. With each passing minute following contamination the individual comes closer to being a casualty. Of the vesicant agents, lewisite is the most rapidly acting and ethyldichlorarsine the slowest, with mustard occupying a middle position. Lewisite must be neutralized or removed from the skin within 5 minutes and mustard within 10 minutes if the person is to be saved from becoming a casualty. However, decontamination even several hours later may ameliorate the damage by removing excess gas which has not yet penetrated the skin. With decontamination of the eyes time is even more important. If serious injury is to be avoided lewisite must be removed from the eyes within 1 to 2 minutes, and mustard within 2 to 3 minutes.

PROCEDURE

Decontamination of the individual should begin at the place of attack, and should be instituted as quickly as possible.

The first treatment of any gas victim is directed to the eyes unless the person is protected by a gas mask. This should be done immediately at the scene of the gas attack before removing the victim to the decontamination station if serious injury to the eyes is to be prevented. Initial treatment for the eyes consists of thorough irrigation, which may be done with ordinary, plain tap water. Solutions of soda bicarbonate and of hydrogen peroxide have been recommended, but there is no evidence to date to indicate that these are in any way better than plain water. The only factor which seems to make any difference is time, that is, how soon the irrigation is given. No fancy equipment or solutions are necessary. Use a glass tumbler or any container available, and simply pour in large quantities of water while holding the eye open. This simple procedure constitutes the best prophylactic treatment for the eyes, and is wholly adequate to prevent serious injury if given in time.

The victim may then be transported to the decontamination station if it can be reached within 10 minutes. It is intended that decontamination stations be set up throughout urban communities. These stations will be supervised and manned by physicians, nurses, nurses' aides, and other trained personnel. These stations should consist of 3 compartments or rooms. Before the contaminated individual enters the decontamination station he shuffles his feet in a chloride of lime dry mix which is placed just outside the entrance in order to decontaminate his shoes before entering. In the first room are the eye irrigation set, metal containers for discarded clothing, and materials and agents for neutralizing and removing gases. The eye irrigation set should consist of a large jar of water (preferably 10- to 15-gallon capacity) to which is attached a small rubber tubing or soft rubber catheter with some form of pinch clamp, so that large numbers of persons may be treated promptly.

On entering the decontamination station, the first thing to be done is irrigation of the eyes, regardless of how much time has elapsed or whether they were previously irrigated. This should be routine. If the eyes are burning and painful, a 2 per cent solution of butyn may be instilled. Cocaine must not be used because of the tendency to cause corneal ulceration. The eyes must not be bandaged.

Next, the individual's clothing is removed. In doing this all contaminated areas should first be cut away with scissors to avoid further contamination. All contaminated clothing must be placed in metal cans and later should be burned.

In treating contaminated areas on the skin, great care must be used in removing liquid; otherwise the agent will merely be spread. First, gently apply dry gauze or cotton to absorb any liquid remaining on the skin. Then apply bleach paste by dabbing, never rubbing, so as to avoid spreading or penetration of the skin. Bleach paste should remain on the skin for about 5 minutes. Solvents such as gasolene, kerosene or carbon tetrachloride may also be used on the skin. If solvents are used, have the sponges only damp, for if dripping wet, they may dissolve and spread the agent as they run over the skin. Bleach paste is not as effective with lewisite and ethyldichlorarsine as with mustard. For these 10 per cent sodium hydroxide in 30 per cent glycerine should be applied to exposed areas and removed with alcohol, repeating the process 3 or 4 times. A 5 per cent solution of sodium hydroxide may also be used.

The person then enters the second room of the decontamination station, which is the shower room, and bathes with plenty of warm water and soap. This completes the decontamination process.

He then enters room no. 3, which is the clothes room, where he is given clean clothing and instructions as to what symptoms of gas poisoning to watch for and where to report if they appear. If he is not a casualty he is sent home; otherwise he is sent to a casualty station or hospital as indicated.

Symptoms of injury from liquid vesicant agents generally appear in 2 to 3 hours, but may come on in 1 hour or be delayed as much as 12 hours. The first manifestation is erythema with accompanying burning and itching, and several hours later the appearance of blisters.

Skin burns from vapor may not appear until 12 or more hours have elapsed, and usually the person is not aware that he has been gassed until appearance of the erythema. When this happens it is too late for decontamination procedures. He is already a casualty.

This discussion has taken up the measures for decontamination only, which is first aid or prophylactic treatment. Its sole purpose is the prevention of casualties. Treatment of the casualty is reserved for other speakers on later programs. In closing, I again want to stress that if decontamination is to be effective it must begin within a few minutes after exposure. When effectively carried out there will be no casualties from gas attacks. Decontamination is a complete defense against civilian chemical warfare, and when ideally performed it gives complete protection and renders civilian gas attacks useless for the enemy.

HISTORY OF BRUCELLOSIS*

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ABOUT sixty years ago a small boy who had just come in from playing trains with his cousin and constant companion was called by his mother. "Little son, I want you to take this pitcher of milk over to Mrs. Smith; the preacher is coming to dinner at her house today and everybody is so busy there she can't send for it. Don't spill it, and bring the pitcher back, and don't lose the two cents she will give you."

That year the sister of 3 years had not been doing well and the doctor had ordered for her a diet exclusively of milk and the tiny, slightly sweetened store crackers called "nic-nacs." Of necessity the father purchased a cow and kept it in a stall next to the horse, an old, blind, gray and much loved nag, used chiefly for visiting relatives in the country on Sundays.

The sister did thrive, probably because her brother smuggled fresh fruit in to her frequently enough to supply the needed vitamin C. The surplus milk was sold to neighbors at 4 cents a quart or it was given to them. The excess, which had soured in spite of the cool and mysterious depths of the well, was fed to the pigs. The cream, which was skimmed off each morning from yesterday's milk, was placed in a 1-quart Mason jar and shaken, sometimes for 3 hours, to get a small lump of very pale butter—pale, probably, because the cow got neither carotin nor sunshine.

In that Delaware village 60 years ago there was no regular milkman. A few families of farmers living nearby could be induced to bring in milk for regular customers, but a careful mother who wanted the milk handled according to her own standards of cleanliness usually preferred to keep her own cow. Her own standards of cleanliness were—at least, her own.

Now, it happened that the family of our little boy's cousin also had a cow from time to time. The father was not the town's leading merchant, but depended on the produce of a small farm at the edge of town and upon his meager income as a "section hand" on the railroad. Therefore, their occasional cow was one that could be purchased at a cheap price. A cow was a cow and neither her record as an unsuccessful mother, nor her claim to no pride of race could compete with the possibility of acquiring her for several dollars less than the current rate. There were 3 boys in that family; the other 2 were older than our boy's inseparable companion. The oldest was about 10 years old, 60 years ago, and a worthy hero to any boy half his age. He was kind and thoughtful and dependable. When the younger boys started to school he was their protector and friend. In him was all the promise that every parent sees in a fine and sturdy and blue-eyed man-child with only his laudable characteristics considered as permanent—he would grow out of the others.

All things seemed to be going well in that railway junction town. A brass band had staged a day of excitement far greater than any Fourth of July had ever produced, Sunday School excursions were entirely eclipsed by it; Cleveland had been elected. All was right with the world.

But, unlike Peter Pan, these boys had to grow up. As the long months dragged their way through, the oldest and nicest cousin was not doing so well in school; he was absent more and more frequently; he had headaches and he was often feverish. Rarely was he sick enough for the doctor to be called in to give him pone bread pills. He had headaches, he had growing pains, then he had spring fever, then the suspicion began to grow that actually there was nothing at all the matter with him—he was lazy and good-for-nothing.

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* Read before the Society, November 18, 1942.

He left school early and tried to hold jobs. Every once in a while he had to lay off and stay around home; he generally went back to work because he thought he had to, and he felt no worse at the brickyard than he did at home. Finally, he got a job at the roundhouse, working for the railroad. For him and his family this was fortunate, because in the course of time he could draw sick benefits and a pension. Even more fortunate for him, a fine, strong, young woman became his wife and the mother of their 3 children. He is still living at 70 years of age, he is much crippled by rheumatism; for years he has been unable to do any kind of work. His wife has supported him during most of their married life by doing all kinds of hard work. Their older children grew up in poverty and neglect; the youngest, fortunately, came early under the influence of his younger uncle and is now doing all that any strong, intelligent, young man can do for his country—enlistment, Armored Force officers' candidate school, second lieutenant, first lieutenant, a transport. He is everything his father might have been if one of those family cows had not infected him, through her raw milk, with brucellosis.

How many young men and women, through drinking the raw milk of Bang-infected cows, are at this moment being changed from potential soldiers and sailors and workers in industry to hopeless and helpless burdens on their families and their communities, cannot be estimated. Every town and village has its quota of persons classed as the lazy poor, the unemployable. They are men and women of all ages; they are the forgotten; many of them never ask for relief; even the social service workers do not know about them. When we are better able to diagnose brucellosis we shall be in a position to estimate the magnitude of our responsibility for destroying not only the lives but, also, the chances for health and happiness of the victims of raw milk from infected cattle.

The milk-drinking customs of a little Delaware town 50 and 60 years ago are typical, even now, of many other communities of our country. It is only 50 years since William T. Sedgwick, of the Massachusetts Institute of Technology, called attention to the fact that we need a safe milk supply just as much as we need a safe water supply, both controlled bacteriologically.

In 50 years age-old customs cannot undergo universal change. In the case of dietary customs there is often the element of human greed, more elegantly known as the economic factor, acting to retard wholesome progress. Everyone knows how bitterly contested has been every step forward in the movement toward the universal pasteurization of milk intended for human consumption.

Brucellosis is only one of the numerous infections for which raw milk may be responsible. However, it is probably the most subtle, the most difficult to diagnose, and the most difficult to influence by medical treatment.

The volume by Dr. I. Forrest Huddleson,[1] "Brucellosis in Man and Animals" (New York: Commonwealth Fund, 1939), is the standard reference work for information concerning this disease and its causative bacteria. It may safely be considered that all contributions to our knowledge of brucellosis, up to the time of its final editing, are referred to in this publication.

Brucellosis is named in honor of the discoverer of the first member of the genus Brucella to be cultivated on artificial media. In 1887, David Bruce,[2] a British Army medical officer, succeeded in growing this organism from the spleens of victims of a disease which, as early as 1859, Marston[3] had named "Mediterranean or gastric fever." In 1905 Zammit[4] proved that goat's milk was the chief source of the infection which had for a long time been a serious menace to the health of Army personnel stationed on the

Island of Malta. The goat species of Brucella is named melitensis.

In 1897 B. Bang[5] isolated from the fetuses and fetal membranes of cows that had aborted an organism which he called Bacillus abortus. Furthermore, he proved this organism to be the cause of infectious abortion of cattle, the disease now commonly known as Bang's disease.

Schroeder and Cotton[6] (1911) and Theobald Smith and Fabyan[7] (1912) almost simultaneously recognized the udder of the cow as the reservoir of this organism. This accounts for danger inherent in the raw milk of Bang-diseased cows, a potential menace which is emphasized by the fact that the bacteria may be shed in the milk even when the animal has exhibited no symptom of disease. This, of course, is also true of food-poisoning types of staphylococci and certain types of streptococci pathogenic for man, among others.

I had the privilege of seeing autopsies on guinea pigs that had been injected with milk by Schroeder and Cotton during their studies on tuberculosis in cattle. Lesions which resembled those caused by the tubercle bacillus contained only a small gram-negative bacillus which was finally proved to be identical with the Bang organism. At another time I saw such lesions in guinea pigs which had been injected by these workers with tonsil tissue. The tonsils had been removed chiefly in Washington hospitals. This, I believe, was one of the earliest demonstrations of the infectiousness of the abortus bacillus for man.

A most important discovery was made by Dr. Alice Evans[8] when she recognized the practical identity of Malta fever and the infectious abortion organisms. These observations, reported in 1918, further emphasized the potential role of the raw milk of infected animals in epidemiology.

In 1914 J. Traum[9] isolated from aborted fetuses of hogs an organism which he believed to be the abortus bacillus of Bang.

Careful studies in many laboratories have brought out the fact that while these 3 organisms are closely related there actually are cultural, physiologic and epidemiologic differences among them. As a result of extensive studies, Meyer and Shaw[10] in 1920 proposed that a new genus be created for these organisms. Their name for the group has been universally adopted and we now designate the 3 species as Brucella melitensis, Brucella abortus and Brucella suis.

These 3 species differ in their ability to cause disease in man. Of course individual human hosts vary widely in their susceptibility to them and, as is the case with all other pathogenic bacteria, certain strains of any one of the 3 species will be highly invasive and pathogenic, while others, especially the bovis, may show little evidence of infectiousness.

It is generally considered that Brucella abortus is the least dangerous and Brucella suis the most dangerous to man. Hardy[11] states: "There has been a case fatality of 3 per cent in our cases. Deaths have occurred in infections beginning in the ambulatory types, as well as among those of the malignant variety. The duration of the infection has been variable and cannot be predicted. It is apparent, therefore, that prognosis must be somewhat guarded. This is particularly true in infections known or believed to be caused by Brucella suis; on the other hand, we have found it safe to give a fair prognosis in cases which could be attributed to Brucella abortus."

With regard to brucellosis in Malta, Debono[12] tells us: "The severity of brucellosis varies from year to year. There are years in which the disease appears to be more virulent and in which the mortality is higher. . . . The official death rate, 6.1 per cent, is undoubtedly too high, if all the cases of brucellosis are taken into account. Many of the milder cases pass unrecognized and many more are not reported and do not appear in the official statistics. . . . Taking all cases together the mortality averages between 4 and 5 per cent."

In his discussion of the incidence of brucellosis in different parts of this country, Hardy has "noted that there is a higher rate of human infections in areas raising large numbers of hogs and goats."

Studies were reported at the recent (St. Louis, Mo.) annual meeting of the American Public Health Association, by Jordan, Borts, Harris and Jennings[13] of the Iowa State Board of Health, which have an interesting bearing on Hardy's observation. They stated that in Iowa cattle and hogs are often allowed to run together in the same field. The ground is polluted by the droppings of Brucella-infected swine; such pollution soils the udders of the cows; at milking time, with a sketchy type of cleanliness, Brucella suis gets into the milk. These investigators without difficulty have found Brucella suis in the cream separated from the milk of such cows.

The reports we are receiving from dairy farm inspectors furnish sufficient cause for alarm even without this report from Iowa. It is inevitable that with labor turnover and especially with acute shortage of farm labor cleanliness about the barn and in the dairy must suffer. Conscientious farmers who have had justifiable pride in the conditions of their cattle and in every phase of milk production on their farms are finding it more and more difficult to train their help, especially when the help is not there. Deductions as to what is taking place on farms which were always below standard need not be mentioned. However, we may go far enough to demand the universal pasteurization, and when it becomes impossible to have the entire supply processed at central plants we must train our people to pasteurize, or scald, or boil all the milk used by their families.

Certified milk is not to be omitted from this process. At the present time all careful pediatricians are demanding that certified milk be pasteurized.

About 3 years ago my attention was drawn to the presence of Bang's disease in some of the herds belonging to members of the "Inspected Raw Milk Commission."[14] Furthermore, I found one producer to be selling raw milk under the approval of a Medical Milk Commission while there were many Bang-infected cattle on his milking line. There is strong evidence that at least 2 children were infected through drinking the certified raw milk from this dairy.

I have said nothing about the diagnosis and treatment of brucellosis. May I refer you to the volume on "Diagnostic Procedures and Reagents,"[15] published in 1941 by the American Public Health Association. Its chapter on Brucellosis was compiled by Miss Frances Sullivan and myself.

It is unwise to start treatment with any type of so-called vaccine until a diagnosis has been made. There is always a chance that the vaccine will stimulate the production of agglutinins or opsonins or will sensitize the patient to a skin test. Under such circumstances the usual tests will be worthless and one then must attempt to obtain cultures from the blood or from a possible local lesion. Cultures are the only completely reliable symptom in any case.

My own interest is almost completely in the prevention of milk-borne brucellosis. Until our veterinarian colleagues have completed the marvelous job they are actually doing toward the eradication of Bang's disease we must insist on the pasteurization of milk.

With milk being delivered at homes when everyone is away at work there will be long delays before it reaches the refrigerator. Then the potential menace of raw milk will be multiplied many times. There is no saboteur among us more vicious than the individual who deliberately spreads brucellosis among us, using raw milk as the vehicle.

In closing, I cannot do better than quote the plea for care in the diagnosis of brucellosis that has been made by Dr. Alice Evans:[16] "Because the clinical picture is vague, chronic brucellosis cases have often been thrown into the clinical scrapheap of neurasthenia. The error stigmatizing brucellosis patients as neurasthenic adds to physical ills the mental anguish that results from the unsympathetic attitude these patients encounter. Also because the clinical picture is vague, when the time comes that physicians will include it among diseases to be considered in mild cases of obscure etiology, there will be the danger that a diagnosis of chronic brucellosis may be given too readily, without sufficient study to rule out other diseases. There is no disease in which the diagnosis requires a saner judgment."

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Says that warmth should not be used in treatment of shock. Teaching outlines for first aid workers should be modernized at once by modifying those portions dealing with external heat for the alleged prevention or treatment of shock, *The Journal of the American Medical Association* declares in an editorial in its February 6, 1943, issue on "Cooling in Shock." The point to the editorial is that instead of warming the shocked patient, as has been the general custom in the past, he should be allowed to maintain the lowest safe level of temperature. *The Journal* says:

"The use of external heat to treat or prevent shock is a time honored remedy like the treatment of fever with cold applications. These measures once seemed wholly logical. Means of lowering body temperature in febrile states are now generally used only when the temperature, rising over 104° F., causes delirium and threatens life. Fever is recognized as part of the 'wisdom of the body.' The concept of the possible protective role of reduced temperature of the body or the extremities in shock has not been given sufficient consideration. Warnings about the dangers of overheating are appearing with increasing frequency in current writings. Many thoughtful surgeons long ago abandoned the 'postoperative sweat' treatment or 'shock bed' which was introduced primarily in the hope of preventing shock and pneumonia.

"The patient who is going into shock may feel uncomfortably warm, just as does the one who is about to faint. This may be considered the converse of the 'chill' that accompanies the rise in temperature at the onset of fever. A chill obviously is a mechanism for raising body temperature rapidly; the feeling of warmth, like the sweat after a chill, is part of the bodily mechanism for rapidly lowering body temperature. No one has proved that a patient's sensation and behavior when he has a chill or a sweat are harmful and not a part of a complex adaptive mechanism. Many of us have had the unfortunate experience of finding 'well trained' people working hard to warm up a patient with cold, clammy skin when the rectal temperature was found to be 105 or 106° F., much to the consternation of all concerned except the patient, who by this time had ceased trying to remove the covers.

"Patients in shock look better when heated, just as febrile patients may feel better after the use of antipyretics. In animals shocked by various procedures a temporary improvement in appearance is produced by warming, but this may be followed by rather sudden collapse. The warmed animals show a higher death rate than the unheated or cooled controls. Analogies between shocked animals and the complex types of shock seen in modern war cannot be too closely drawn; work on higher apes is needed to round out the observations on rodents and dogs. However, it is certainly true that when blood volume is reduced the oxygenation of the tissues is restricted. When the oxygen supply is thus reduced, survival depends partially at least on the temperature. The cooler the tissues the less the oxygen requirement. The fall in metabolism amounts to about 13 per cent for each degree centigrade.

"Much harm is attributed to tissue anoxia in shock. Subnormal temperature tends to prevent relative anoxia by diminishing the speed of the vital use of oxygen. Thus a fall in temperature is not the result of the anoxia but rather seems to be a well developed and useful protective mechanism which the traditional treatment combats. In this connection it is interesting to note that many have been surprised at the recovery of casualties who did not have the 'benefit' of prompt professional care."

CHOLECYSTITIS AS A COMPLICATION OF BRUCELLOSIS*

Report of a Case

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IT IS almost certain to follow that a disease caused by an organism which can be found in the blood stream will of necessity be followed by complications. In certain individuals who, we say, have a low resistance for this particular infection, there will be an arrest and accumulation of the organism in many parts of the body, with proliferation and secondary infection. This is the common behavior of any blood stream infection. A rather cursory search of the recent literature was illuminating in this respect. In the past few years the following surgical complications of brucellosis are reported:

Hepatitis and cholecystitis
Cirrhosis, hepatic
Hydrarthrosis
Meningoencephalitis
Osteomyelitis
Peritonitis
Orchitis
Phlebitis
Abortion
Splenomegaly
Gastrointestinal hemorrhage

This is quite a formidable list of complications and we would do well to pause and ask if a more thorough investigation of some of the conditions we commonly meet could not be traced to Brucellosis. Those investigators familiar with the disease are very emphatic in the statement that it is far more prevalent than most physicians ever dreamed, and proper investigation by laboratory methods would disclose Brucellosis as the cause of many illnesses which go under another name or without a name. It is likewise maintained that many abscesses which, upon evacuation and culture of the pus, fail to show a growth on the usual media are likewise Brucellosis in a terminal stage. The disease is not uncommon, its low mortality disarms us, and most laboratories are not requested to make the necessary tests. The surgeon will be called upon to deal with the complications which are bizarre and often serious. Some of these cases may respond to the various types of present-day therapy, and others will require operative measures. Just as we were accustomed to thinking of osteitis and cholecystitis as complications of typhoid fever, it would seem that we have a successor, but a much less malignant one, in brucellosis.[1, 2, 3, 4]

This case is reported because I believe it is probably typical of others that have been seen or will be seen and may stimulate further inquiry into the relation of Brucellosis to some common surgical diseases.

REPORT OF CASE

Through the courtesy of the patient's physician, Dr. J. E. Knight, Warrenton, Va., the preliminary history was furnished and is abstracted as follows: Mrs. S. S., 66 years old, was admitted a few years ago, to the County Hospital at Warrenton, on July 16. Her illness began shortly before with fever, general discomfort and pain in the occipital region, and on the second or third day a light discreet rash was noted on the abdomen and arms. The patient recalled removing a tick from the body a few days previously, and inasmuch as several cases of typhus had occurred in this community, the diagnosis of tick fever was seriously entertained.

Specimens of blood were sent to the State Laboratory, July 21, August 4 and August 14, and all were reported negative for Bacillus typhosis, Bacillus paratyphosis, Proteus X19 and Bacillus abortus. Blood cultures for Bacillus typhosis were negative July 23 and August 1, 5 and 18.

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* Read before the Society, November 18, 1942.

The patient's symptoms were rather mild but constant, consisting of languor, backache and headache. The rash was described as being similar to that of German measles and would fade and recur on many parts of the body. The temperature never exceeded 100.6°F., and for the most part of her illness was less than 1 degree above normal. She was discharged August 18, feeling somewhat better. During the last 19 days of her hospitalization she was without fever.

The patient first came under my care September 1, 1936, when she was admitted to Sibley Hospital, Washington, D. C., complaining of pain in the right upper and lower abdominal quadrants, with the tentative diagnosis of appendicitis.

In the course of the next few days the pain and tenderness became definitely localized under the right costal border and an indefinite mass could be distinctly palpated. The temperature ranged from 99° to 101.6°F. Hemograms were as follows:

	September 3	September 4	September 10
Hemoglobin		72% (Dare N.S.)	
Erythrocyte		3,650,000	
Leukocyte	8,500	8,900	15,000
Polys	87	84	77
Lymphocytes	13	15	23
Eosinophiles	0	1	0
Monocytes	0	0	0
Basophiles	0	0	0
Shilling			
Young forms	1	1	1
Band forms	7	10	6
Segmented forms	79	73	70

The urine was essentially negative, and the physical examination revealed no gross findings that would warrant any change in the diagnosis of acute cholecystitis, which was made on the fourth day after admission.

The patient's condition fluctuated slightly from day to day, with occasional vomiting and abdominal discomfort. Jaundice was not present at any time.

On the 12th day after admission the condition had not materially changed, and it was evident that spontaneous recession of the symptoms could not be expected. At this time the presence of a mass under the right costal region was even more apparent, and further delay was thought to be inexpedient. In view of the previous negative blood reactions and continuous illness, brucellosis was suspected and the pathologist reported that the serologic examination of the blood proved the agglutination tests to be strongly positive for brucellosis.

On September 12 a right rectus incision disclosed an enlarged, acutely inflamed gall bladder embedded in inflammatory adhesions. It differed from the usual type in that the wall of the gall bladder seemed to have been penetrated by the infective process and a small amount of pus or exudate was outside the gall bladder. It would be appropriate to call the condition pericholecystitis. The gall bladder was easily displaced, since the adhesions were not firm, but rather set in the soft inflammatory area. The gall bladder was removed in its entirety and a cigarette drain inserted in the fossa.

Dr. O. B. Hunter's report is as follows:

"Grossly the tissue submitted for examination consists of the gall bladder, which measures 8 cm. in its longitudinal diameter by 5 cm. transversely through the fundus. Its lumen is considerably narrowed, and the walls show a marked granulomatous type of inflammatory reaction involving the subserous and muscular coats and measures 2 to 2.5 cm. in thickness; it is reddish-brown and grayish-white after fixation. The organ presents the appearance of a granulomatous inflammation such as tuberculosis. The mucous membrane is fairly intact and there is some hemorrhagic exudate present.

"Sections through the wall of the gall bladder reveal a fairly intact mucosa with some hypertrophy of the villi and congestion and edema of the supporting tunica propria. There is an irritative hyperplasia of the lining epithelium in certain areas with evidence of considerable engorgement and petechial hemorrhages by diapedesis. Deeper in the wall of the organ there is a marked granulomatous reaction and the production of considerable round cell infiltration, endothelial proliferation, fibrosis and in certain areas necrosis of a semicaseous type. This process also involves the subserous areolar tissue, which is markedly thickened and forms a pseudocapsule for the granulomatous inflammatory mass.

"The gross and microscopic picture presented reveals a granulomatous type of cholecystitis with the major involvement being in the outer walls of the gall bladder rather than the interior, similar to that of certain forms of tuberculosis, tularemia and Malta fever."

Cultures from the gall bladder cavity, from the aspirated pus, from pus on swabs, and from scrapings of the wall of the gall bladder all showed Bacillus coli communior and Bacillus abortus. Of the various agglutination tests only that for Brucella abortus-melitensis was positive in 1 to 160 dilution. The patient's blood culture was negative.

Brucella vaccine therapy was instituted on September

24 with initial dose of 0.25 c.c. and continued every 3 days with gradually increasing dosage while in the hospital and after her return to her home. Convalescence was not as prompt as in the routine cholecystectomy. Moderate fever followed and reached normal on the 15th postoperative day and remained so until discharge from the hospital 1 week later. The wound healed well and her complete recovery seemed assured at that time. Four months later the patient reported herself as having gained 20 pounds in weight and enjoying excellent health.

CONCLUSIONS

The wide distribution of brucellosis with its typical symptomatology may be found responsible, if proper investigation is made by serologic tests, for many unexplained illnesses and not a few surgical complications. It would seem wise to be "brucellosis-minded" in atypical infections, particularly those in which the liver, gall bladder and joints are involved. Obscure cases of osteitis and osteomyelitis should be scrutinized for brucellosis.

We should be ever mindful of the fact that we are indebted to Miss Alice Evans of the National Institute of Health for a large part of our knowledge of brucellosis and to our brothers in science, the veterinarians, for valuable pathologic and clinical data.

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Explains measures taken to safeguard nation's limited stocks of quinine. Measures undertaken to safeguard the nation's limited stocks of quinine are summarized in *The Journal of the American Medical Association* for November 28, 1942, by LEWIS H. WEED, M.D., Washington, D. C., Chairman of the Division of Medical Sciences of the National Research Council. He points out that troops cannot operate successfully in malarial areas "without an effective antimalarial drug. Malaria is present throughout most of the tropical and subtropical world. The extent of operations in these regions is steadily increasing and it is conceivable that they may grow to tremendous proportions within a short time. Ninety per cent of the world's customary sources of quinine was cut off when the Japanese invaded Java and the Philippines. . . ."

He explains that a program for conserving the nation's limited stocks of quinine has been worked out by the joint efforts of the War Production Board and the National Research Council. In addition to freezing present stocks and restricting the use of quinine to the treatment of malaria persuasive efforts have been instituted by the War Production Board to bring in all unopened packages of quinine, and the machinery is now being set up for bringing in opened packages.

The Subcommittee on Tropical Diseases and the Committee on Medicine of the National Research Council have given an opinion that totaquine should prove to be as effective as quinine sulfate in the treatment of malaria by mouth. Totaquine is an antimalarial drug containing less quinine than the pure quinine drug ordinarily used to treat malaria and other conditions.

The program also has involved stimulating increased production of atabrine, a synthetic antimalarial drug. It is the consensus of the Subcommittee on Tropical Diseases of the National Research Council "that until we have had more experience with the use of atabrine it should be used only under the guidance of a physician or public health officer," Dr. Weed says.

"It is anticipated on the basis of recent investigations by the Board of Economic Warfare that the barks from South America, of low quinine content but sufficiently rich in total crystallizable alkaloids . . . to make totaquine of U. S. P. standards will be found in sufficient quantity to enable totaquine to replace civilian quinine requirements. The amount of this bark which is available has been an unknown factor, because its low quinine content has not made it previously marketable.

"If every physician in civilian practice and every public health officer will follow the recommendations of the Subcommittee on Tropical Diseases regarding the use of atabrine and will use totaquine in place of quinine whenever totaquine is available, an important and material conservation in our limited stocks of quinine will be accomplished."

THE TWELFTH REVISION OF THE U. S. PHARMACOPOEIA AND ITS IMPORTANCE TO THE PHYSICIAN

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THE U. S. Pharmacopoeia, since its first appearance in 1820, has been most useful as a guide for the physician in his practice of the healing art, yet a work which he consults too infrequently. It has been the endeavor from the beginning to keep the work free from gross static features and to reflect the best in current thought and practice in drug therapy. The present revision, or U.S.P. XII, appeared in June 1942, less than two years after the calling of the Convention for the selection of a new revision committee, a gain of about four years in time over that required by the U.S.P. XI Committee. The U.S.P. may now be said to be fully abreast with the times.

The phrase "Accelerated Revision" which is used in the preface to the new revision is indeed a proper synonym for the U.S.P. XII.

The new book became official on November 1, 1942 and has been adopted by the Federal Government as its book of specifications for the drugs named therein in its enforcement of the Food, Drug and Cosmetic Act. This means that when a physician orders a preparation under the official title the preparation must conform to the specifications of the new revision. Thus both the physician and the patient are protected against impurities and variability, conditions which are not always present when nonofficial trade preparations are prescribed and which may be the deciding factor leading to an untimely death.

The U.S.P. is unique among the world's pharmacopeias, in that the Convention called for the purpose of revision is national in scope, yet nongovernmental, representing unified effort with the coöperation but not the dictation, of governmental agencies.

The last or 1940 Convention provided for launching a new pharmacopoeia every 5 instead of the customary 10 years, with a bound "supplement" to be issued at the halfway mark. Furthermore, "Interim Revision Supplements" are to be issued as sheet supplements as frequently as required to keep pace with the rapid developments in scientific medicine.

It should be recalled that the idea for the book was the brain child of the pioneer New York City physician, Dr. Lyman Spalding, and his medical associates, and although the Revision Committee today does not consist wholly of physicians, the part played by the body of nonmedical members is primarily that of a scientist interested in setting up rigid specifications for the drugs named.

The general committee responsible for the present revision again consisted of 50 working members. This general committee was subdivided into 15 subcommittees, important among which were the subcommittees on Scope, Therapeutics and Pharmacodynamics, and Nomenclature.

The Subcommittee on Scope decided upon the admissions and deletions and primarily bore the responsibility for making the revision of therapeutic value to the profession. The committee aimed to admit only the best known and most thoroughly tested of the present-day remedies in the form and dosage in which they are most useful to the physician.

Preparations protected by secrecy were rigidly excluded, but those protected by patent are no longer excluded on that basis alone. If the drug is outstanding as a therapeutic agent and the manufacturer does not object to its being given official recognition under a nonproprietary name, the patented article may be admitted. Examples of such admissions are Butyn, Prostigmine, Salyrgan, Atabrine, Avertin and Caprokol.

PARTIAL LIST OF ARTICLES ADDED TO THE U.S.P., TWELFTH REVISION*

Latin Title	*English Title*
Acidum Aminoaceticum	Aminoacetic Acid
Acidum Ascorbicum*	Ascorbic Acid (Vitamin C)
Acidum Mandelicum*	Mandelic Acid
Æthylis Carbamas	Ethyl Carbamate (Urethane)
Amyleni Hydras	Amylene Hydrate
Butacainae Sulfas	Butacaine Sulfate (Butyn)
Butylis Aminobenzoas	Butyl Aminobenzoate (Butesin)
Calcii Mandelas	Calcium Mandelate
Calcii Phosphas Tribasicus*	Tribasic Calcium Phosphate
Capsulae Ammonii Chloridi	Ammonium Chloride Capsules
Capsulae Carbonei Tetrachloridi	Carbon Tetrachloride Capsules
Capsulae Digitalis	Digitalis Capsules
Capsulae Diphenylhydantoini Sodici	Diphenylhydantoin Sodium Capsules
Capsulae Ferri et Ammonii Citratum	Iron and Ammonium Citrates Capsules
Capsulae Olei Chenopodii	Oil of Chenopodium Capsules
Capsulae Olei Hippoglossi	Halibut Liver Oil Capsules
Capsulae Oleovitaminae A	Oleovitamin A Capsules
Capsulae Oleovitaminae A et D Concentratae	Concentrated Oleovitamin A and D Capsules
Capsulae Pentobarbitali Sodici	Pentobarbital Sodium Capsules (Nembutal)
Capsulae Tetrachloroaethyleni	Tetrachloroethylene Capsules
Capsulae Theobrominae et Sodii Acetatis	Theobromine and Sodium Acetate Capsules
Carbarsonum	Carbarsone
Chloroazodinum	Chloroazodin (Azochloramid, N.N.R.)
Cyclopropanum*	Cyclopropane
Dihydromorphinoni Hydrochloridum	Dihydromorphinone Hydrochloride (Dilaudid)
Diphenylhydantoinum Sodicum	Diphenylhydantoin Sodium (Dilantin)
Ergonovinae Maleas	Ergonovine Maleate
Estradiolis Benzoas	Estradiol Benzoate (Progynon-B)
Estronum	Estrone (Theelin)
Eucatropinae Hydrochloridum	Eucatropine Hydrochloride (Euphthalamine)
Gelatum Alumini Hydroxidi Siccum	Dried Aluminum Hydroxide Gel
Hexylresorcinol	Hexylresorcinol (Caprokol)
Injectio Bismuthi et Potassii Tartratis	Bismuth and Potassium Tartrate Injection
Injectio Bismuthi Subsalicylatis	Bismuth Subsalicylate Injection
Injectio Caffeinae et Sodii Benzoatis	Caffeine and Sodium Benzoate Injection
Injectio Calcii Gluconatis	Calcium Gluconate Injection
Injectio Dextrosi	Dextrose Injection
Injectio Dextrosi et Sodii Chloridi	Dextrose and Sodium Chloride Injection
Injectio Digitalis	Digitalis Injection
Injectio Emetinae Hydrochloridi	Emetine Hydrochloride Injection
Injectio Epinephrinae Hydrochloridi	Epinephrine Hydrochloride Injection

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* Added by means of supplements.

Injectio Hydrargyri Salicylatis	Mercuric Salicylate Injection
Injectio Insulini*	Insulin Injection
Injectio Mercurophyllinae	Mercurophylline Injection (Mercupurin)
Injectio Mersalylis et Theophyllinae	Mersalyl and Theophylline Injection
Injectio Neostigminae Methylsulfatis	Neostigmine Methylsulfate Injection (Prostigmine)
Injectio Ouabaini	Ouabain Injection
Injectio Phenolsulfonphthaleini	Phenolsulfonphthalein Injection
Injectio Picrotoxini	Picrotoxin Injection
Injectio Quininae Hydrochloridi et Æthylis Carbamatis	Quinine Hydrochloride and Ethyl Carbamate Injection
Injectio Strophanthini	Strophanthin Injection
Injectio Sulfobromophthaleini Sodici	Sulfobromophthalein Sodium Injection
Injectio Theophyllinae Æthylenediaminicae	Theophylline Ethylenediamine Injection
Liquor Iodi	Solution of Iodine (2 per cent)
Menadionum	Menadione (Vitamin K Subst.)
Mersalyl	Mersalyl (Salyrgan)
Methylrosanilinae Chloridum*	Methylrosaniline Chloride (Gentian Violet)
Neostigminae Bromidum	Neostigmine Bromide (Prostigmine)
Neostigminae Methylsulfas	Neostigmine Methylsulfate (Prostigmine)
Nicotinamidum	Nicotinamide
Oleum Hippoglossi	Halibut Liver Oil
Pamaquinae Naphthoas	Pamaquine Naphthoate (Plasmoquin)
Quinacrinae Hydrochloridum	Quinacrine Hydrochloride (Atabrine)
Riboflavinum	Riboflavin (Vitamin B_2 or G)
Sulfanilamidum*	Sulfanilamide
Sulfapyridinum	Sulfapyridine
Sulfarsphenamina	Sulfarsphenamine
Sulfathiazolum	Sulfathiazole
Syrupus Glycyrrhizae	Syrup of Glycyrrhiza
Tabellae Acetophenetidini	Acetophenetidin Tablets
Tabellae Acidi Acetylsalicylici	Acetylsalicylic Acid Tablets
Tabellae Acidi Ascorbici	Ascorbic Acid Tablets
Tabellae Acidi Nicotinici	Nicotinic Acid Tablets
Tabellae Atropinae Sulfatis	Atropine Sulfate Tablets
Tabellae Barbitali	Barbital Tablets
Tabellae Cascarae Sagradae	Cascara Sagrada Tablets
Tabellae Chiniofoni	Chiniofon Tablets
Tabellae Codeinae Phosphatis	Codeine Phosphate Tablets
Tabellae Codeinae Sulfatis	Codeine Sulfate Tablets
Tabellae Colchicinae	Colchicine Tablets
Tabellae Digitalis	Digitalis Tablets
Tabellae Dihydromorphinoni Hydrochloridi	Dihydromorphinone Hydrochloride Tablets
Tabellae Ephedrinae Sulfatis	Ephedrine Sulfate Tablets
Tabellae Ergonovinae Maleatis	Ergonovine Maleate Tablets
Tabellae Ergotaminae Tartratis	Ergotamine Tartrate Tablets
Tabellae Extracti Fellis Bovis	Extract of Ox Bile Tablets
Tabellae Ferri Sulfatis	Ferrous Sulfate Tablets
Tabellae Magnesii Trisilicatis	Magnesium Trisilicate Tablets
Tabellae Menadioni	Menadione Tablets
Tabellae Methenaminae	Methenamine Tablets
Tabellae Morphinae Sulfatis	Morphine Sulfate Tablets
Tabellae Neocinchopheni	Neocinchophen Tablets

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* Added by means of supplements.

Tabellae Neostigminae Bromidi	Neostigmine Bromide Tablets
Tabellae Nicotinamidi	Nicotinamide Tablets
Tabellae Pentobarbitali Sodici	Pentobarbital Sodium Tablets
Tabellae Phenobarbitali	Phenobarbital Tablets
Tabellae Phenobarbitali Sodici	Phenobarbital Sodium Tablets
Tabellae Potassii Chloridi	Potassium Chloride Tablets
Tabellae Quinacrinae Hydrochloridi	Quinacrine Hydrochloride Tablets (Atabrine)
Tabellae Quinidinae Sulfatis	Quinidine Sulfate Tablets
Tabellae Riboflavini	Riboflavin Tablets
Tabellae Saccharini Sodici	Saccharin Sodium Tablets
Tabellae Sodii Nitritis	Sodium Nitrite Tablets
Tabellae Sodii Salicylatis	Sodium Salicylate Tablets
Tabellae Strychninae Sulfatis	Strychnine Sulfate Tablets
Tabellae Sulfanilamidi	Sulfanilamide Tablets
Tabellae Sulfapyridini	Sulfapyridine Tablets
Tabellae Sulfathiazoli	Sulfathiazole Tablets
Tabellae Theophyllinae	Theophylline Tablets
Tabellae Theophyllinae Æthylenediaminicae	Theophylline Ethylenediamine Tablets
Tabellae Theophyllinae et Sodii Acetatis	Theophylline and Sodium Acetate Tablets
Tabellae Thiaminae Hydrochloridi	Thiamine Hydrochloride Tablets (Vitamin B_1)
Tabellae Thyroidei	Thyroid Tablets
Tetracainae Hydrochloridum	Tetracaine Hydrochloride (Pontocaine)
Totaquina	Totaquine (Total cinchona alkaloids)
Tribromoaethanol	Tribromoethanol (Avertin)
Unguentum Æthylis Aminobenzoatis	Ethyl Aminobenzoate Ointment (Benzocaine)

Excluding the titles that are descriptive of the class only, the new revision contains 654 monographs on specific forms or substances, making about 90 more titles than in the previous revision. This gain, however, is not in new drugs but largely in new forms, as will be seen from the above list which is complete under the titles of capsules, injections and tablets. These three forms number 79, the large majority being tablets.

The inclusion of correct dosage forms is a radical departure from custom and is a feature that deserves especial commendation from physicians.

The deletions that have been made will in no manner be detrimental to scientific medicine inasmuch as the deleted drugs were either duplications or were rendered obsolete by the substitution of the newer improved agents, such as the replacement of santonin with hexylresorcinol for use as an anthelmintic.

Perhaps further explanation should be made regarding some of the admissions, especially since several of them have been appearing under various trade or brand names, thus making the new generic name an unfamiliar one. Trade or brand names do not appear in the pharmacopoeia for obvious reasons, their appearance in the table above under the English title column being for identification purposes only.

Menadionum, or menadione, the synthetic substance, methylnaphthoquinone, although not identical with vitamin K, possesses the same activity as the natural vitamin. Some of the trade names for menadione are Thyloquinone (Squibb), Proklot (Lilly) and Kayquinone (Abbott).

Gelatum Alumini Hydroxidi Siccum, or dried aluminum gel, is the dried form of aluminum hydroxide gel which is distributed by Wyeth & Brother, Inc., as an antacid adsorbent under the name of "Amphojel," either as tablets or in gel form. The latter form is termed "Cremalin" by the Alba Company.

Both the gel and amorphous powder are now official.

Ergonovinae maleas, or ergonovine maleate, the water soluble alkaloid of ergot possessing oxytocic properties, is synonymous with Ergotrate (Lilly), Ergometrine (Burroughs Wellcome) and Basergin (Sandoz). The maleate differs in no essential respect from any other salt except that it possesses greater stability.

The addition of oubainum, or ouabain, the crystalline glycoside from Acocanthera Ouabaio, may create some confusion, first, because the common synonym for it is strophanthin-G, and second, because strophanthin (amorphous), official in the U.S.P. XI, is retained in the present revision.

Although both are used in the same manner for cardiac stimulation, ouabain, or the so-called crystalline "strophanthin," possesses twice the activity of the old form. This difference in dosage becomes very significant when employed intravenously, and care should be taken not to confuse their dosage.

There are 29 relatively minor changes in official Latin Titles, among the more striking cnes being the change of the name of the sodium salt of the barbituric acid derivatives from "soluble" to "sodicum." For example, Barbitalum Solubile is now Barbitalum Sodicum.

This is also the case with soluble fluorescein, soluble saccharine and soluble iodophthalein.

The aqueous solutions used as injections, formerly listed as liquors, are now listed under injectio. They comprise Injectio: Hepatis, Parathyroidei, Pituitarii Posterioris, Histaminae Phosphatis, and Epinephrinae Hydrochloridi.

On the other hand, Aqua Ammoniae and Aqua Ammoniae Fortior became Liquor Ammoniae Dilutus and Liquor Ammoniae Fortis, respectively.

The general selection of material in this revision follows closely that of the previous revisions, so that those who feel that the book should contain information regarding pharmacodynamics and therapeutics will be disappointed with it.

Essentially it is a book consisting of an approved list of present-day medicinal agents, with their official Latin and English titles, tests for purity, and activity standards, testing procedures, and the average dose.

The Pharmacopoeia may be regarded as the physician's first line of defense against the detail man, for by familiarizing himself with it, the physician will be more able to evaluate the newer and less tried drugs. It deserves a place in every physician's library.

Precautions should be taken to keep new eye disease under control. "Because epidemic keratoconjunctivitis [an eye disease frequently found among shipyard workers] is a disease apparently new to continental United States, and because little definite information is available concerning its mode of spread, precautions should be taken to keep it under control," MURRAY SANDERS, M.D.; F. D. GULLIVER, M.D.; L. L. FORCHHEIMER, M.D., AND R. C. ALEXANDER, M.S., New York, declare in *The Journal of the American Medical Association* for January 23, 1943. Their statement is made in a report on further observations of an outbreak of the disease in New York City. They say that "Information concerning epidemic keratoconjunctivitis has, for the most part, been limited to clinical descriptions. Because the incidence of the disease in the United States has increased rapidly since its appearance in California two years ago, further information on the status of the etiologic agent and its mode of spread is desirable.

"Initial efforts in this direction were made when, early in 1942, a few cases were observed in New York City and a virus was isolated. The present investigation deals with 80 cases examined and treated at the office of a local ophthalmologist. . . ."

Among the recommendations made by the authors, based on their investigations, is that, since the beginning signs and symptoms of the disease are often indefinite and vary so greatly that in early stages it can be easily confused with other acute eye diseases, the possibility of the disease be considered in any case of acute inflammation of the membrane lining of the eyelid which does not show improvement after ten days.

They also recommend meticulous cleanliness and disinfection of the hands of physicians and nurses who have come into contact with a case of the disease; strict isolation as soon as possible for all patients with the disease and observation of all contacts of the patients for early signs of the disease.

President's Page

NOT JUST ANOTHER PROGRAM

Last month I outlined briefly the program which has been adopted by the Committee on Medical Service for the District of Columbia, with a view of assuring the people of the District adequate medical care for the duration. I said that steps would be taken immediately to put the program into effect.

Recently a questionnaire was sent to all members of our Society requesting data and inquiring if physicians would coöperate in making the Committee's plans effective. Now I know that physicians, like other people, are weary of questionnaires but this is the only way the Committee can obtain essential information. I sincerely hope that before this appears, all physicians will have completed and returned the form sent them.

Evidently a number of practitioners failed to examine the questionnaire closely. Question No. 4 reads: "State the number of calls you were unable to accept during the week of January 31 because your regular patients required all your time." More than 100 physicians returned their forms before the week had elapsed. In other words, this question—and a very important one it is—was ignored or carelessly read. However, in general the response has been very satisfactory. A number of specialists have indicated that they will do general practice in an emergency.

Let me say that physicians must not minimize the importance of coöoperating with the Committee on Medical Service. The Committee's undertaking is not just another program. What it is endeavoring to do is to protect the community's health so that should there be a serious emergency, proper precautions will have been taken. In addition, it is considering plans for the postwar period. Its work, therefore, has far-reaching implications for the medical profession in the District.

Editorials

THE SUPREME COURT DECISION

After four and one-half years, the legal proceedings involving the American Medical Association, the Medical Society of the District of Columbia, et al. have come to a close. The decision handed down by the United States Supreme Court upholding the verdict of the lower court finding the defendant organizations guilty of violating the Sherman Anti-trust Act brought to a close a long drawn-out case in which it was hoped that the legal status of the medical profession would be settled. The question uppermost in the minds of physicians following the indictment of organized medicine was whether legally medicine is a profession or a trade. The Supreme Court apparently thought this irrelevant.

Upon appeal of counsel for the American Medical Association and the District Medical Society, the Court granted certiorari but limited the argument to three questions which it thought important: (1) whether the practice of medicine and the rendering of medical services as described in the indictment are "trade" under Section 3 of the Sherman Act; (2) whether the indictment charged or the evidence proved "restraints of trade" under Section 3 of the Sherman Act; (3) whether a dispute concerning terms and conditions of employment under the Clayton and Norris-LaGuardia Acts was involved, and, if so, whether petitioners were interested therein, and therefore immune from prosecution under the Sherman Act.

In regard to the first question, the Court ruled:

> "Much argument has been addressed to the question whether a physician's practice of his profession constitutes trade under Section 3 of the Sherman Act. In the light of what we shall say with respect to the charge laid in the indictment, we need not consider or decide this question."

An analysis of the organization of Group Health Association follows, concluding with the statement:

> "The fact that it is coöperative, and procures service and facilities on behalf of its members only, does not remove its activities from the sphere of business."
>
> "As the Court of Appeals properly remarked, the calling or occupation of the individual physicians charged as defendants is immaterial if the purpose and effect of their conspiracy was . . . obstruction and restraint of the business of Group Health."

On the second question the Court made the following comment:

> "The petitioners' contention is . . . that the indictment charges five separate conspiracies defined by their separate and recited purposes, namely, conspiracy to obstruct the business of Group Health, to obstruct its members from obtaining the benefit of its activities, to obstruct its doctors from serving it, to obstruct other doctors in the practice of their calling, and to restrain the business of Washington hospitals. The petitioners say that they were entitled to have the trial court rule upon the sufficiency in law of each of these charges and, as this was not done, the general verdict of guilty cannot stand. They urge that even though some of the named purposes relate to the business of Group Health, and that business be held trade within the meaning of the statute, yet, as the practice of medicine by doctors not employed by Group Health is not trade, and the operations of Washington hospitals are not trade, the last two purposes specified cannot constitute violations of Section 3 and the jury should have been so instructed. In this view they insist that the jury may have convicted them of restraining physicians unconnected with Group Health, or of restraining hospitals, and, if so, the verdict and judgment cannot stand."
>
> "We think the courts below correctly construed the indictment. It is true that, in describing the conspiracy, five purposes are stated which the conspiracy was in-

tended to further, but, in a later paragraph, still in the charging part of the instrument, it is alleged that the purpose was to hinder and obstruct Group Health in various ways and by various coercive measures, which are identical with the 'purposes' before stated."

" . . . however the argument is viewed, we agree with the courts below that the case was one for submission to a jury. No purpose would be served by detailed discussion of the proofs."

On the third and last question as to whether the A.M.A. and the District Medical Society were entitled to the benefits of the Norris-LaGuardia Act, the Court ruled:

"It seems plain enough that the Clayton and Norris-LaGuardia Acts were not intended to immunize such a dispute as is presented in this case."

"The petitioners were not an association of employes in any proper sense of the term. They were an association of individual practitioners each exercising his calling as an independent unit."

As was to be expected, Washington newspapers commented editorially upon the case. The *Evening Star* said:

"The case was precedent-making in Sherman Act prosecutions, and the principal challenge of the defense rested on the contention that the practice of medicine is a profession, not a trade, and that physicians, consequently were exempt from prosecution under the act. Justice Roberts, who wrote the court's opinion, said it was not necessary to pass on this particular point."

The *Washington Post* had this to say:

"The only question which the opinion leaves unanswered is this: When an association of doctors is restrained from interfering with the operations of a business which it believes to be encroaching upon the ethics of the medical profession, why should racketeers who stop the actual flow of trade from one state to another in the name of organized labor be deemed immune to punishment in the Federal courts? It is the contrast between the attitudes of the Court in dealing with different associations that is shocking. We hope the day will not be long in coming when the stern justice that has been administered to the Medical Association will be meted out to every group that restrains or conspires to restrain the flow of commerce."

And finally the *Baltimore Sun*:

"Apparently this ruling leaves the medical profession in the anomalous position of being a profession and at the same time being subject to the laws which govern trade and business. This position appears the more anomalous since the Court specifically refused to give the two associations the benefit of the immunity which the Norris-LaGuardia Act confers on labor unions which for purely trade purposes habitually employ tactics at least comparable to those charged against the two medical groups.

"Thus a labor union which, as in the case of Mr. Petrillo's musicians, boycotts the record makers is free to do so, even though such action is clearly in violation of the anti-trust laws and is permitted only because Congress specifically granted immunity to the labor organizations. But organizations of professional men who, in their attempt to maintain certain professional rules and practices, resort to pressure are made subject to the full impact of the anti-trust laws. This is a strange contradiction in our public policy."

And thus concludes a case which will be long remembered. What its effect will be upon the practice of medicine is uncertain. On the day the decision was announced, Dr. A. Magruder MacDonald issued the following statement:

"Of course, the decision handed down by the United States Supreme Court in our case comes as a keen disappointment. However, these are too critical times to dwell upon the result of a legal controversy which will have little meaning if we do not win the war in which we are now engaged.

"Conditions have changed greatly since the anti-trust trial against organized medicine was initiated. No longer are we concerned with many of the problems and issues which seemed so important a few years ago. The Medical Society and its members are at present carrying a very heavy burden. Much of their time and effort is devoted to the war. One-fourth of its membership is in the armed services. Many others have volunteered for service in Civilian Defense, Selective Service, and for other wartime work. In addition, the medical profession of this city, recognizing its obligation to provide adequate medical care for the civilian population, is making plans to meet any emergency which may arise. The people of Washington can be confident that the Medical Society will fulfill its responsibility as the representative medical organization here. It will not lose sight of its objectives, which are the same as they have been for more than a century—to promote the science and art of medicine and to protect the public health."

ULTRAVIOLET IRRADIATION OF THE BLOOD FOR SEPTICEMIA

Six articles published in medical journals during 1942 on ultraviolet irradiation of the blood arouse interest in a new application of the well-demonstrated biologic effects of ultraviolet irradiations. These papers mark the beginning of an aggressive policy in presenting to the medical profession the five-year-accumulated experience with this therapeutic aid, during which approximately 15,000 blood irradiations have been done in hospitals.

The developmental period began in 1928 when Emmett K. Knott, a Seattle physicist and X-ray dealer, began to experiment with the effects of ultraviolet rays on artificially infected blood of dogs. The biologic effects of these rays on microörganisms outside the body had been known for long, but no one had been able to discover a method of getting at the organisms in opaque blood. Mr. Knott set out to find out how to effectively irradiate blood so as to destroy dangerous microörganisms therein without harming the host. By 1933 his experimental work had developed a technic for doing this, and had delimited the approximate effective dosage of ultraviolet light, a dosage so brief in time that it is hard to believe it efficacious until one sees it confirmed by many trials.

In 1933 Dr. Virgil K. Hancock,[1] a Seattle obstetrician, began ultraviolet irradiation of hopeless streptococcal and staphylococcal blood stream infections, and in 1937 Dr. Elmer W. Rebbeck, a general surgeon in Pittsburgh, Dr. Henry A. Barrett, a roentgenologist of New York City, and Dr. George P. Miley, Clinical Professor of Pharmacology of Hahnemann Hospital, Philadelphia, began the use of this therapy.

At the A. M. A. Convention in New York City in 1940 these men pooled their experience and presented this technic to physicians for the first time in the scientific exhibits of this convention. Again in the scientific exhibits of the American Congress of Physical Therapy, meeting in Washington's Mayflower Hotel in 1941, Dr. Miley and Mr. Knott presented the results of their work with hemo-irradiation in pyrogenic infections and presented a summary of the regularly observed clinical effects seen in the course of treatments of human cases, as follows:

"1. A subsidence of toxic symptoms 12 to 72 hours following treatment, completely reversing the downhill course of the patient.

"2. A marked and rapid peripheral vasodilatation in over 75 per cent of all cases, an effect persisting from 1 to 10 days.

"3. A marked drop of high temperatures in the 24 to 72 hours following treatment. If a marked accumulation of pus is occurring or present, toxic symptoms subside but the temperature remains elevated. There is often a moderate temperature rise above normal in the 24 hours following treatment.

"4. An abrupt cessation of bacterial invasion and multiplication. Never has a case of acute pyogenic infection without associated septicemia progressed to a septicemia.

"5. A definite rise toward normal of abnormally low venous oxygen values."

"In none of the cases treated has there been observed any harmful delayed effects, such as deleterious effects on the blood itself, as can be judged by the presence of normal red and white cell count and structure, as well as a normal hemoglobin content, in patients followed up 2½ years. Nor have there been observed any delayed harmful effects on kidney function, or, in fact, on any body function."

The bactericidal effect of ultraviolet irradiation of the blood has been demonstrated and published independently by Miley[2] in 103 consecutive cases of acute pyogenic infection; by Rebbeck[3, 4] in 14 serial cases of generalized peritonitis, 19 cases of appendiceal abscess, 21 cases of puerperal sepsis, and 22 cases of post-abortional sepsis; and by Hancock[5] in 7 severe cases. Miley, Rebbeck, Hancock and Barrett[6] have shown that blood irradiation is a safe and efficient method of controlling infection, that it has often succeeded when chemotherapy has failed, and that it controls acute pyogenic infection to an extent hitherto unseen.

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[1] Hancock, V. K., and Knott, E. K.: Northwest Med., 1934, **33**, 200.

[2] Miley, G.: New York State J. Med., 1942, **42**, 38.

[3] Rebbeck, E. W.: Am. J. Surg., 1941, **54**, 691.

[4] Rebbeck, E. W.: Ibid., 1942, **55**, 476.

Regarding photosensitization, Miley records that ultraviolet blood irradiation therapy can be given safely and with impunity following administration of sulfanilamide derivatives, quinin, and the iodides; however, those patients who have not received "sulfa" drugs prior to blood irradiation have a much shorter convalescent period. Sulfanilamide, sulfapyridine, and iodides cannot be given safely within the first 5 days following ultraviolet blood irradiation therapy without risking a probable photosensitive reaction in the form of markedly increased toxemia, pulmonary edema, and renal shutdown.

The considerable experimental work on the bactericidal effect of ultraviolet irradiations has demonstrated them to be lethal, outside the body, for streptococcus, staphylococcus, colon bacillus, tubercle bacillus, pneumococcus and other organisms. The published papers on ultraviolet blood irradiation have confirmed the consistent bactericidal effects, in the body, on all these organisms but the tubercle bacillus. Some unpublished work has been done on infections with this organism which suggests the desirability of further testing the procedure in various tuberculous infections.

The clinical results in inactivation of bacterial toxins by this agent, as covered in published papers, doubtless has a wider field of application, in view of the findings of experimental work on various toxic substances outside the body. With wider use of this therapy, there will doubtless be found more useful clinical applications of the widespread and prolonged dilatation of capillaries which follows ultraviolet blood irradiations; and also of the observed rise toward normal in oxygen absorption capacity of venous blood with low oxygen values. Already there has been extensive trial of these effects in severe arthritis resistant to known methods of treatment, and of intrinsic asthma which has resisted all other forms of therapy. Reports on these two subjects, based on several years' experience, are awaited with interest.

The number of diseases for which we have as yet little effective therapy, including the virus infections, offer enticing fields for exploration of the effects of this new therapeutic measure, particularly in view of the results of such tests as have already been made, but not yet published, and in view of the experimentally demonstrated effects outside the body of this powerful chemical reactor and catalytic agent, ultraviolet light.

THE DAVIDSON LECTURE

The seventh Davidson Lecture is to be given on October 13, 1943. Physicians and scientists who wish to compete for the privilege of being the lecturer on that occasion must observe the following rules:

"The selection of the Davidson Lecturer shall be on the basis of competition, the winning essay to be selected by a subcommittee consisting of five (5) members of the Executive Board appointed by the Chairman. No member can serve on the committee who may desire to compete.

"The competition shall be thrown open to physicians or other scientists working in the District of Columbia.

"The essays to be submitted must bear no indication of the author's identity, being signed by a nom de plume. The identification of the author must be in a sealed envelope bearing on its surface the same nom de plume. No essay may be submitted that has been published.

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[5] Hancock, V. K.: Am. J. Surg., 1942, **58**, 336.

[6] Barrett, H. A.: M. Clin. North America, 1940, **24**, 723.

"Essays should be submitted to the Secretary of the Medical Society of the District of Columbia not later than July 1 of odd numbered years.

"In case no essay is found worthy of an award, the subcommittee shall declare no award; the lecturer then to be selected by the full Executive Board."

It is desired that wide publicity be given this contest so that as many Washington physicians and scientists can participate as possible.

The Chairman of the Subcommittee of the Executive Board is Dr. Henry R. Schreiber. Other members are Drs. William P. Herbst, Jr., A. Magruder MacDonald, Fred R. Sanderson and Raymond T. Holden.

Those who wish to participate are reminded that all essays must be in the hands of the Secretary not later than July 1, 1943, and that no manuscript will be accepted after that date.

PERTINENT PARAGRAPHS

January Meetings

The first month of the year was the most active of the winter for the Society's boards, sections and committees. Meetings which were held, including general sessions of the Society, were as follows:

January 6	Procurement and Assignment Committee
January 7	Section on Neurology and Psychiatry
January 11	Committee on Public Health
January 12	Grievance Committee
January 13	Scientific Meeting of Society
January 15	Subcommittee on Child Welfare Committee on Radio Education Special Course for Physicians on the Medical Aspects of Chemical Warfare
January 18	Committee on Medical Service
January 20	Scientific Meeting of Society
January 22	Special Course for Physicians on the Medical Aspects of Chemical Warfare
January 25	Committee on Postgraduate Education Executive Board
January 27	Scientific Meeting of Society
January 28	Committee on Public Policy Section on Pediatrics
January 29	Special Course for Physicians on the Medical Aspects of Chemical Warfare
January 30	Section on Pathology

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Praise for the Coroner

During the last session of Congress, a bill was introduced which would abolish the office of Coroner and provide for the organization of the office of medical examiner for the District of Columbia. Senator Harold H. Burton of Ohio presided over the Senate Subcommittee which held hearings on this legislation. Several witnesses were heard for and against the proposed bill. Supporting it were the Commissioners of the District of Columbia, the administrative officers of the District, the United States Attorney, Dr. William C. Woodward, and Mr. Rufus Lusk, President of the Washington Taxpayers' Association. The Coroner and his staff, civic organizations, and individual citizens were opposed to its passage and favored retention of the present system.

Of interest to members of the Medical Society is the following statement which appeared in a communication addressed by Senator Burton to Senator Millard Tydings, Chairman of the Senate Subcommittee:

> "After . . . careful consideration. . .I came to the clear conclusion that in my opinion it was *not* in the best interests of the public to pass the proposed law, certainly at this time, for the reasons that the Coroner's Office is now being conducted in an exceptionally competent and economical manner under the direction of Dr. A. Magruder MacDonald, who has served in that capacity for many years and whose standing in the community is now recognized by the fact that he is also President of the District Medical Society. During his term of office he has not only maintained a high standard which has commanded public confidence, but has succeeded in securing for the morgue an up-to-date and well planned building which replaced the formerly inadequate and unsatisfactory quarters. He has been handicapped in

developing the full services of the Coroner's Office by an extremely limited budget and practically all of the advantages which were urged for the conversion of the office into that of a Medical Examiner can be as well obtained by the granting of additional funds for the operation of the present Coroner's Office as by a reorganization of it under the new title.

"Where the office of Medical Examiner has been substituted for that of Coroner in this country, it generally has been as the result of the unsatisfactory and often scandalous conduct of the Coroner's Office under the existing system. Frequently this has been due to political interference with the conduct of the office and to the neglect of it in cases where a Coroner has been popularly elected to office with little regard to the standard of performance and only with regard to his membership in the Party which happened to command a majority at the particular election when he was elected.

"In the present instance, the Coroner is an appointed officer who has administered his office with such credit and with such highly commendable economy that it not only would be of little public advantage to reorganize the office and, among other things, to risk the loss of the standards of performance of which he has proven himself capable, but it might well result in a substantial increase of expenditure at a time when a public official who has made a record of economy in the performance of his duties deserves the utmost support and confirmation of his policies."

The *Evening Star*, of Washington, not a supporter of the present coroner system, commented editorially as follows:

> "Perhaps the best way to get rid of the antiquated coroner system would be to appoint a coroner who so thoroughly botched his job that the main inducement for change would be to get rid of him. Senator Burton's adverse report on the Commissioners' bill to substitute a medical examiner system in Washington for the present coroner system was based chiefly on the competency with which Dr. A. Magruder MacDonald, the present coroner, has filled the position. There was no debate about that in the beginning. The Commissioners, like others before them who have tried to make the change, were thinking about systems, not personalities. And while Senator Burton's report is deservedly complimentary to Dr. MacDonald, it adds little of value to the discussion of advantages in changing the system."

Whether or not members of the Society are in favor of the present coroner system, they must agree that this is high praise for our President. Those who know him and the work he has done will feel that it is well deserved.

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Are Lawyers Next?

In a recent article in *Life Magazine*, there appeared several pictures illustrating conditions in the Office of Price Administration. In one of them a group of disheveled young lawyers are shown around a conference table. The caption reads: "Like many another Washington agency, OPA is a lawyers' heaven. Everything has to be discussed by numerous lawyers."

Sincere and able though they undoubtedly are, these hardworking officials have drawn more fire than any other group in the Nation's Capital. Which leads one to wonder if lawyers are to succeed physicians as a target for public criticism.

Fulton Lewis, Jr., Mutual Broadcasting System's ace news commentator, is well known to the medical profession, having formerly been associated with the Medical Society of the District of Columbia. Mr. Lewis, an able crusader, recently blasted away at various Government agencies for the complexity of their systems of operation, among them the OPA. Mr. Lewis has taken special delight in reading over the air questionnaires which were prepared by the bright young lawyers of that agency. These forms, he says, are so complicated that even department officials do not understand them.

Newspapers, too, have had their say about the red tape dished out by Government lawyers. An example is the headline which appeared recently in the *Washington Daily News*, "Why must OPA irritate you?" Under this headline the *News* reporter writes: "The more I see of rationing difficulties the more I believe complicated blanks and lack of public rationing education are to blame for sore spots."

Even the President of the United States felt it incumbent upon him to say something about the handiwork of Government lawyers. In his message to the 78th Congress, Mr. Roosevelt made this statement: "We all know that there have been mistakes—mistakes due to the inevitable process of trial and error inherent in doing big things for the first time. We all know that there have been too many complicated forms and questionnaires. I know about that. I have had to fill some of them out myself."

From these and other things which one hears and reads these days, one wonders if lawyers aren't next.

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Postwar Medical Care There is much talk these days of postwar planning. No subject is more to the fore than medical care. Several Government agencies are interested and are developing plans which they hope will be adopted. Medical societies, too, are considering ways and means of meeting problems which will surely arise.

Recently at a meeting of the Committee on War Participation of the American Medical Association, Dr. James E. Paullin, President-elect of the A.M.A., urged "the establishment of some suitable special agencies in the . . . Association for this purpose."

The *Journal of the American Medical Association*, in the January 9, 1943, issue, refers editorially to reports which it says emanate from sources in Washington that "neither the Senate Committee on Finance nor any of the other agencies which might be concerned with these matters are inclined to expansion of social security legislation at this time. Nevertheless such considerations must come eventually. When they do come, the extent to which the Social Security Act covers the administration of preventive medicine and medical service will be a matter of utmost importance to the medical profession."

The *Journal* continues:

> "Some fundamental concepts should be kept constantly before us. Most important is a realization that conditions in the United States are different from those in any other nation in the world. It would be the height of folly for us to approach this problem with the view that technics established as suitable in other nations would be equally suitable for us. The American democracy differs, even in its essentials, from the other great democracies. Any technic developed for medical service in this country should be adaptable to the maintenance of the American democracy. The nature and quality of medical service in the United States have always differed from those of other nations. The scale of living of the American people has been of a quality far superior to that generally available elsewhere in the world. Obviously any new technics that are developed for wider distribution of medical service should not contemplate a considerable depreciation of quality in order to attain wider distribution.
>
> "The platform adopted by the American Medical Association urges the principle of local control with financial aid from state and federal sources as needed to accomplish the objectives that are sought. The soundness of this principle as it relates to the functioning of the American democracy cannot be questioned.
>
> "Finally comes the principle of free choice. The very basis of the American democracy is free choice: free choice of the school one attends, the newspaper one reads, the church in which one worships, the store in which one makes one's purchases, the car in which one rides, the bank in which one keeps one's funds, the hospital in which one receives hospital care, the physician and the lawyer whom one consults. Careful reading of the Beveridge plan indicates that such considerations have not seemed particularly to be the concern of those who approach the problems of medical care wholly from a social or economic point of view. Unless medical care is approached primarily from the medical point of view, the result will inevitably be interference with the progress of medical science and depreciation of the quality of medical service.

Physicians will take note of the statement in this editorial that consideration of social security legislation must come eventually. This is inevitable and now is the time for medical societies throughout the country to study proposals being made and to develop programs which will meet the medical needs of their communities.

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Naturalization of Alien Physicians According to press reports, Attorney General Francis Biddle has directed the Immigration and Naturalization Service to expedite the naturalization of alien physicians. Through Immigration Commissioner Earl G. Harrison, instructions have been issued to speed the filing of petitions for naturalization, and to hold hearings in advance of their regular order on the calendar on applications of practicing alien physicians or aliens who would be qualified to practice if they were citizens.

Mr. Harrison pointed out, in issuing the instructions, that many states, either by statute or by administrative rulings of licensing boards, require applicants to establish their American citizenship before they are permitted to practice medicine. Other states issue temporary licenses which are subject to cancellation unless citizenship is obtained within a specified period of time.

Attorney General Biddle emphasized that the new procedure in no way affects the statutory requirements for naturalization, but merely expedites the handling of applications.

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Medical Journals Dull Reading?

Dr. Julian P. Price, Secretary of the South Carolina Medical Association and Editor of the *Journal of the South Carolina Medical Association*, in an address before the Annual Conference of Secretaries and Editors of Constituent State Medical Associations in Chicago last November, took editors of state medical journals to task in a manner which pleased his listeners immensely. Goodnaturedly he chided them for the dullness of their publications. He said:

> "I have never understood why so many physicians who are charming conversationalists, good impromptu speakers, and adept story-tellers, will discard their individualities entirely when they begin to write for a medical journal. Throwing aside those epigrammatic sentences, those salty phrases, those apt quotations, and those bits of subtle humor which make their informal speech so delightful, they adopt that stilted and rather ponderous style which is so characteristic of most medical writing. Much of the material which appears in our journals is so similar that the editorials, the comments, and the news reporting could be transplanted from one publication to another with a slight change in local color and no one would be the wiser. Read our journals and you will find much of what is written weighted down with trite headings, stereotyped phrases, involved sentences, and polysyllabic words.
>
> "All of us who are editors receive a mass of information, usually in the shape of formal reports—which are dull reading at best—that should be of interest to our readers. Too many of us are content to publish this material just as it is rather than to rewrite it so that it becomes both interesting and readable. All of us need to take a lesson from the editorial staff of such a magazine as *Time* which is able to make 'cover to cover' reading of a publication the rule rather than the exception. . ."
>
> "Lest you might infer that I am presenting a blanket denunciation of all the literary efforts which appear in our journals, I would like to submit for your bedside reading and for your enjoyment the following examples of excellent writing and reporting which I have culled from the last few issues of our publications."

Dr. Price then mentioned specifically commendable features of a number of journals, among which was the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, of which he said:

> "'Pertinent Paragraphs' in the *Medical Annals of the District of Columbia* . . . is not only informative but highly enjoyable because of its lack of editorial restraint."

In the discussion which followed Dr. Price's paper, Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association*, had a few comments to make in regard to style of writing. He said:

> "You cannot write an article on . . . the subject of the sugar content of various ordinarily used beverages or the intoxicating effects of more used beverages . . . in the tone of *Time Magazine* and be sure you will impress your readers with its scientific quality. . .
>
> "So that this question of cooking up the scientific material so that it will read like *Time* and still be scientific approaches, I believe, a literary impossibility, with all due regard, of course, for the idea that things can be made interesting in many different ways."

To this Dr. Price countered:

> "[The Conference] probably got the impression that I was suggesting we write our entire magazines in the style of *Time*. I did not. I said that all these reports that come to us from the Office of Civilian Defense need to be written in a readable style, and that is where I mentioned *Time Magazine*.
>
> "I have not touched on any scientific articles, and I don't think we should change them because they are written in a style that we have to adhere to, but I still maintain that when it comes to these voluminous reports that come in, which you and I don't even read but simply

send to the printer, we ought to rewrite them and put them in the style of *Time*."

Well, the boys had a great time. Dr. Price deserves praise for an unusually interesting paper. Thanks to him, it was a profitable and enjoyable session.

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Lectures on Health and Medical Care

Included in the spring semester of the School of Social Sciences and Public Affairs of the American University are courses on the Social Services. In a communication received from Harry W. Ketchum, Dean of the Undergraduate Division, the courses are referred to as a "part of the 'In-Service' training program for government employees which the University has provided in order that employees of the Government may continue their academic training during the evening hours."

Listed is a course on "Current Problems in Health and Medical Care." Lecturers in this course will be George St. J. Perrott, Chief, Division of Public Health Methods, National Institute of Health; Dean A. Clark, M.D., Office of Civilian Defense and Public Health Service; and Louis S. Reed, Senior Economic Analyst, Public Health Service and War Production Board.

The course is described as "dealing with trends in health and health services, with particular emphasis on health problems in wartime: present state of nation's health; public and private facilities for meeting health needs; health provisions of Social Security Act; group hospitalization and other prepayment plans; group practice; health and the war—rejections under Selective Service; expanding military and industrial communities, withdrawal of physicians by armed forces, rationing medical manpower, supplies and equipment, medical services for civilian victims of enemy action, rehabilitation of physically handicapped; postwar planning."

MOBILIZATION OF DISTRICT PHYSICIANS

An appeal has been made by the Committee on Medical Service for the District of Columbia, recently created by the Medical Society's Executive Board, to physicians, requesting their coöperation in a health program for Washington. The following proposals have been approved by the Committee:

1. An immediate canvass of all physicians in the District to determine the patient load each medical practitioner is carrying, the demands made upon him for medical service which he is unable to meet, his willingness, if a specialist, to do general practice, and his willingness to keep evening office hours.

2. Subdivision of Washington into districts, one physician to be appointed from each to the Committee on Medical Service. The Committee will supervise the canvass previously referred to and through its members make an investigation to ascertain how adequately demands for medical service are being met. Members will be expected to familiarize themselves with the health problems in their areas with the view of making recommendations at meetings of the Committee.

3. Preparation of panels of physicians for each district, to be available to the public through Medical Bureau. Physicians on the panels will be called upon in emergencies when Bureau doctors already listed for these calls are not available, or in the event of an epidemic. They will be listed according to the districts in which they practice for day calls and where they reside for night calls.

4. Relocation of physicians in the District should receive serious consideration because it may be necessary, if more physicians are withdrawn for the armed forces, to encourage those remaining to relocate their offices or at least establish branch offices.

5. A study of the gasoline rationing program as it affects the provision of medical care in the District of Columbia. The program has not been satisfactory in so far as doctors are concerned, requiring entirely too much of their time which should be devoted to patients.

6. An educational program among the laity as to medical care they can expect during the emergency. The extent of this program and what it should consist of is something that requires careful thought.

7. Endorsement of a study now being conducted by the United States Public Health Service to ascertain if Federal employees are obtaining medical care

when they seek it. This is being done by the questionnaire method.

8. Development of plans to cope with an epidemic and to stimulate the general application of preventive medicine.

9. Consideration of conditions which may exist after the war. Certainly our economy will be vitally affected by the financial burden of the war, which will, to a large extent, determine conditions under which physicians will work. In other words, postwar planning should begin now.

Questionnaires which were mailed to the membership on January 27 were to have been returned by February 10. A considerable number of physicians failed to note that they were to record the calls which they could not accept for the week beginning January 31 and should return their forms immediately thereafter. However, the response has been gratifying and the wholehearted coöperation of the membership of the Medical Society seems assured.

The *Evening Star*, of Washington, which carried an announcement of the program on its front page January 19, 1943, commented editorially the following day:

"For the laity the meaning of the committee's proposals necessarily must be that of preparedness for any crisis involving the health of Washington that may develop during the years immediately ahead. It is conceivable that the civilian public is liable to suffer some acute physical disability resulting from the strains and tensions, the sacrifices and unavoidable perils of armed conflict. Many citizens remember only too vividly the plagues of pneumonia and so-called Spanish flu which swept over the United States in 1917, 1918 and 1919. . . .

" . . . The experience of the members of the new committee has taught them to be actively on guard. It goes without saying that they should have the wholehearted and sincere support of the lay public in their endeavor to safeguard the health of the people of the District."

Personnel of the Committee is as follows: Dr. A. Magruder MacDonald, *Chairman*; Drs. William J. Stanton, Sidney C. Cousins, Mary Holmes, F. X. Courtney, Charles W. Harnsberger, Glen Pincock, Frank A. Hornaday, Walter W. Price, Robert U. Cooper, Thomas F. Collins, Robert R. Hottel, Rush W. Conklin and George I. Eppard; also Drs. C. E. Rice and O. F. Hedley, and Mr. George St. John Perrott, representing the United States Public Health Service; Dr. George C. Ruhland, representing the District Health Department; Dr. John A. Reed, representing Emergency Medical Service for Civilian Defense in the District of Columbia; Mr. Willard C. Smith, representing the Health Security Administration; and Mr. Theodore Wiprud, *Secretary*.

MEETINGS

Wednesday, March 3

BUSINESS MEETING

THE HONORABLE WALTER H. JUDD, House of Representatives, Congress of United States, will speak on "A Country Doctor in China." Dr. Judd is an unusually able speaker and members of the Society may well look forward to his appearance.

Wednesday, March 10

LUNCHEON MEETING

Speaker: FRED W. RANKIN, M.D., F.A.C.S., President of the American Medical Association.

Luncheon will be served at 12:30 p.m. in the Medical Society's building, with the assistance of the Woman's Auxiliary.

Wednesday, March 17

The *Section on Pathology and Laboratory Medicine* will present a Panel Discussion on Blood Transfusions and Reactions, particularly with reference to the Rh factor, blood plasma and substitutes, albumens, amino-acids, glucose and saline. (Speakers to be announced.)

Wednesday, March 24

The *Washington Society of Gynecologists* will sponsor the following program:

1. "Lesions of the Genitalia," CLARENCE K. FRASER, M.D., AND JOHN L. PARKS, M.D.
2. "Papillary Cyst Adenocarcinoma of the Ovary," J. KEITH CROMER, M.D.

The papers will be discussed by out-of-town guests and members of the Society.

Wednesday, March 31

The *Section on Neurology and Psychiatry* will present the following program:

1. "Arterial Neuralgia—Its Relief by Removal of a Segment of Artery," ROBERT H. GROH, M.D., AND JAMES W. WATTS, M.D., F.A.C.S.
2. "Some Characteristic Personal Issues in Schizo-affective Reactions," JOHN C. WHITEHORN, M.D., Professor of Psychiatry, Johns Hopkins University School of Medicine.

War Section

EMERGENCY VEHICLE PASSES AVAILABLE

All members of the Medical Society of the District of Columbia except those belonging to Emergency Field Units or Hospital Receiving and Treatment Teams can now obtain the new white emergency vehicle passes at the Society's office, 1718 M Street, N.W. Passes for these special groups have been issued to the unit leaders from the office of Dr. John A. Reed, Chief Medical Officer of Emergency Medical Service for Civilian Defense in the District of Columbia. All passes must be signed for in person by physicians obtaining them.

DEDICATION OF BORDEN GENERAL HOSPITAL

The recently erected Borden General Hospital was dedicated on January 15 in the presence of many notables and nearly all the citizens of Chickasha, Oklahoma, where this new military hospital is located. Governor Robert S. Kerr of Oklahoma made the dedicatory address. At its conclusion, he turned the building over to Colonel Ernest R. Gentry, Commanding Officer of the Hospital.

Among the distinguished guests present was Colonel Daniel L. Borden, Commanding Officer of Station Hospital, Fort Eustis, Virginia, for whose father, Dr. William Cline Borden, Lieutenant Colonel, Medical Corps, United States Army, and late Dean of the George Washington University School of Medicine, the hospital was named.

MORE ABOUT RATIONING

Because of numerous complaints received from physicians, the Secretary of the Society communicated with Mr. Whitney Leary, OPA Director for the District of Columbia, protesting the time required to obtain supplemental gasoline coupons. Some physicians have returned to their ration boards four or five times before their applications were acted upon. The Secretary urged Mr. Leary to give immediate consideration to expediting the issuance of supplemental coupons to medical practitioners. He also requested a ruling on pleasure driving as it relates to physicians.

In reply to this communication, a letter was received by the Secretary stating that his request had been referred to the OPA's legal department. On January 21, 1943, Mr. Leary sent the following memorandum to the chairmen of all War Price and Rationing Boards in the District:

"Recently we have received a communication from the Medical Society of the District of Columbia, together with numerous complaints from physicians operating in this area, that physicians are experiencing difficulty in obtaining gasoline rations for the practice of their profession. The complaints are generally that it takes too long to obtain supplemental rations, and that they are forced to go back to the Board a number of times in order to obtain relief.

"We do not believe that the Boards in the District of Columbia are making any effort to seriously curtail the driving of physicians. It is our experience that the average Board generally gives the physician the mileage which he states is necessary to carry on his professional work. Certainly, we know the Boards realize the fact that physicians are very much overworked at the present time due to the number which have been called into the various Armed Services.

"We are simply sending you this memorandum to suggest that you instruct the personnel in the Boards to segregate physicians' applications and expedite them as much as possible for the good of the whole community."

Protests from physicians prompted the Secretary to write Mr. Leary again in regard to certificates which they are required to complete for ill persons who need additional fuel oil. Mr. Leary was informed that the facts to which physicians must certify take time to verify and are of questionable value. It was suggested that they be asked to certify only to their attendance on ill and debilitated individuals. The Secretary said the requirement that ill persons employ the services of a "qualified heating engineer" was unreasonable. The result in some instances, he stated, would be unnecessary suffering.

Another aspect of the fuel oil situation which was directed to Mr. Leary's attention was the difficulty physicians encounter in obtaining fuel oil to maintain proper temperatures in offices located in their homes. Copies of communications received from two physicians were forwarded with the request that the matter be investigated.

This communication went forward on January 22, 1943. At the time the MEDICAL ANNALS went to press, no reply had been received.

NEWS LETTERS TO MEMBERS IN THE ARMED FORCES

The first of a series of news letters from the Secretary of the Medical Society to members in the armed forces was mailed in January. Judging from the prompt and enthusiastic response from a number of those stationed in this country, news from the home front is most welcome. Physicians overseas will not, of course, receive their letters for some weeks. Replies received which are of interest to our members will be published in whole or in part in future issues of the ANNALS.

The success of the letters will depend upon their news interest. The Secretary will appreciate news of general interest such as major changes in hospital staffs and medical school faculties, personal items about medical practitioners known to the profession generally, amusing incidents in which physicians figure, and sidelights on Washington in wartime. Contributions should be forwarded to the Secretary on or before the 15th of each month.

This is an opportunity for every member of the Society to contribute to the enjoyment of his fellow practitioners who are now far from their homes. One physician responding to the Secretary's letter said: "Your letter was received with more than the usual pleasure one feels when he hears from an old friend. . . . Keep writing to those of us in the service, we are delighted to hear from you." Another said that the letter "fills a very timely need to those of us separated from our old lives and associates at home."

DRUG NOTES

A. C. TAYLOR AND S. F. HIGGER

District of Columbia Pharmaceutical Association

At this writing, there are already shortages of certain drugs which threaten to become much worse. However, simple conservation methods may help stretch the supply considerably.

Generally speaking, the physician should attempt to restrict his prescribing of narcotics, sulfadiazene, quinidine, theobromine, caffein and their compounds to the minimum required by the patient. Very frequently only part of the drug prescribed is used. This wastage can be largely controlled.

Another helpful procedure would be the prescribing of drugs having a single chemical identity by the chemical name, rather than by a coined or brand name, thus liberating supplies of drugs tied up in multiple stocking. For example, there is the practice of stocking the almost endless brands of such chemical entities as phenobarbital, diethylstilbestrol, estrone, sodium pentobarbital, ascorbic acid, thiamin chloride, viosterol, menadione, and the sulfa drugs.

The following are some of the ways in which physicians and pharmacists can coöperate to mutual advantage.

When medicines are needed quickly, much time can be saved if the physician will telephone the pharmacy so that prescriptions may be ready when called for or their delivery expedited.

Considerable loss of time and effort, as well as expense, can be avoided if the physician will coöperate fully in the observance of Federal regulations governing the prescribing of codein and similar drugs. The physician and the pharmacist are both required by law to furnish and record properly written and signed prescriptions for such orders promptly. Telephoned prescriptions, accepted by the pharmacist in good faith, too frequently add to his difficulties because of the time and effort often required to obtain the written prescription.

The Federal Food and Drug Act covers two classes of drugs and drug products, in the prescribing and distribution of which both the physician and the pharmacist are particularly concerned. The first group is made up of inherently dangerous drugs such as the sulfas, barbiturates, aminopyrine, cincophen, thyroid, diethylstilbestrol, etc., and their derivatives and combinations, as well as certain other drugs which while not in themselves dangerous, nevertheless under certain conditions may be contraindicated. The regulations require that such drugs be taken by patients only under the direct order and supervision of a physician and therefore must be prescribed in proper form. Oral order directly to the pharmacist is permitted, unlike the requirements for the prescribing of narcotics.

When prescribing such drugs, the prescribing physician may, if he deems it necessary, note on the original prescription that it may be refilled once or twice on the patient's call without the physician or pharmacist losing time by telephoning for permission.

The second group of drug products are those of a general nature which are not necessarily dangerous but which fail to carry on the package full and proper directions for use, as well as contraindications and warnings. Many manufacturers avoid responsibility by labeling even relatively simple products, "To be used on the prescription of a physician," or "As directed by the physician." Unless prepared drug products are properly marked with dosage and other instructions, physicians should use a prescription form as the pharmacist is usually not allowed to sell inadequately labeled products over the counter.

WOMAN'S AUXILIARY NEWS

A Victory Silver Tea to provide Bundles for America and Smokes for Yanks was one of two special wartime activities undertaken recently by the Woman's Auxiliary to the Medical Society of the District of Columbia.

Mrs. A. Magruder MacDonald, *President*, was assisted in the receiving line at the tea by the officers of the Auxiliary: Mrs. L. Brison Norris, *First Vice President*; Mrs. Joseph L. Gilbert, *Second Vice President*; Mrs. Duane C. Richtmeyer, *Recording Secretary*; Mrs. Edward J. Cummings, *Corresponding Secretary*, and Mrs. John J. Shugrue, *Treasurer*. They wore corsages made from Defense Stamps in the form of angels, gifts from the President.

Among the honor guests were Presidents of the Women's Boards of the local hospitals. Past Presidents of the Auxiliary assisted at the tea table, which carried out the patriotic motif with its artistic centerpiece of red, white and blue flowers. Among those who presided at the table were Mrs. Harry Kerr, Mrs. Joseph S. Wall, Mrs. Harry A. Fowler, Mrs. William J. Mallory, Mrs. Prentiss Willson, Mrs. Edward L. Morrison, Mrs. J. Lawn Thompson, Sr., Mrs. Daniel L. Borden, Mrs. William H. Hough and Mrs. Caryl Burbank.

The committee in charge of donations reported that the sum of $65 was collected in the large silver bowl during the afternoon, the money to be used for clothing and smokes for men in service. Members of this committee were Mrs. Eugene R. Whitmore, Mrs. Harry Lewis, Mrs. Watson W. Eldridge, Mrs. Richard B. Castell, Mrs. Roy L. Sexton and Mrs. Tomas Cajigas.

In charge of arrangements for the tea were the following committee members: Mrs. Jesse T. Mann, *Chairman*; Mrs. Roy L. Sexton, Mrs. W. Calhoun Stirling, Mrs. Richard B. Castell, Mrs. Albert E. Marland, Mrs. Daniel L. Borden, Mrs. Edwin S. Crisp and Mrs. Tomas Cajigas.

The Auxiliary is also planning a series of buffet suppers and entertainment for medical officers stationed in nearby camps and hospitals. The first of this series was held in the Medical Society's building on Saturday evening, January 23. About eighty officers attended from Walter Reed Hospital, the U. S. Naval Hospital at Bethesda, Md., Potomac River Naval Command, Headquarters Staff of the

Army Air Corps, Bolling Field and Naval Air Station. A delicious home-cooked buffet supper was served at seven o'clock. Assistant hostesses at the party were daughters of physicians. Piano music furnished the accompaniment for dancing and singing. Mrs. L. Brison Norris, chairman of the committee on arrangements, felt the party was a great success. So did one officer who dashed out to return some theatre tickets so he could come back and stay for the entire evening.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the business session, January 13, 1943:

Active Members

Ruth B. Benedict, 2121 37th Street, N.W.
Andrew J. Betz, 800 Butternut Street, N.W.
Harry Friedenberg, 900 17th Street, N.W.
Aaron H. Gerber, 1716 Upshur Street, N.W.
Florence E. Grady, 1835 Eye Street, N. W.
Dorothy S. Jaeger, 700 East Capitol Street
Paula R. Kaiser, 900 17th Street, N.W.
Morris H. Levine, 1422 K Street, N.W.
George Maksim, 1908 Good Hope Road, S.E.
Captain Wilkins R. Manning, M.C., U.S.A., McCloskey General Hospital, Temple, Texas
Lawrence B. McCaleb, 1835 Eye Street, N.W.
Francis X. Richardson, 7717 Alaska Avenue, N.W.
Lieutenant Robert Lee Simpson, M.C., U.S.A., 4000 Argyle Terrace, N.W.
John J. Sweeney, 1238 Monroe Street, N.E.
Roy A. Thornley, 1801 Eye Street, N.W.
Richard H. Todd, 1835 Eye Street, N.W.
Albert S. Winer, 1835 Eye Street, N.W.
William C. Woodward, 2701 Connecticut Avenue, N.W.

Associate Members

Laura N. Baernstein, 4611 Highland Avenue, Bethesda, Md.
Marion S. Brown, Washington Sanitarium, Takoma Park, Md.
Paul D. Cantor, 7425 Wisconsin Avenue, Bethesda, Md.
John Francis Donohue, St. Elizabeths Hospital
Richard E. Kelso, R.F.D. 1, Falls Church, Va.
Isidor M. Lavine, 3824 34th Street, Mt. Rainier, Md.
Irving L. Marks, Wakefield Apartments, Alexandria, Va.
Ralph B. Miller, 804 South St. Asaph Street, Alexandria, Va-
Russell C. Payne, 3827 34th Street, Mt. Rainier, Md.

The following applicants for membership will be voted on at the business meeting, March 3, 1943:

For Active Membership

Peter P. Andrews, Georgetown University—1939
Donald W. Ash, Tufts College—1941
Martin L. Cannon, University of Maryland—1932
Frederic D. Chapman, McGill University—1938
Leonard M. Dub, University of Cincinnati—1932
Maurice R. Edmonston, Georgetown University—1932
Pearl B. Holly, New York University—1938
Benjamin Isaacson, University of Maryland—1939
Elizabeth S. Kahler, George Washington University—1940
Edward M. Knecht, Harvard University—1937
Richard H. Meredith, Georgetown University—1938
Thomas Richard Rees, George Washington University—1924
Leo C. Varden, George Washington University—1931
George Davis Weickhardt, George Washington University—1939
Jacob J. Weinstein University of Maryland—1936
Carl Hunt Wells, Jr., George Washington University—1941

For Associate Membership

Marion S. Alley, George Washington University—1928
Clancy M. Dower, College of Medical Evangelists—1942
John Royal Ernst, University of Kansas—1910
Jacob Edward Shillinger, George Washington University—1914

Recent changes in membership status:

Associate Reinstated to Active

Mary Holmes

Resigned
Active Member

George J. Stuart

Associate Members

Nathan Glaubach
Harry L. Richardson
Albert J. Sullivan

Nine New Life Members

Chapter II, Article IV, of the Constitution of the Society, reads as follows:

> Life members shall be active members who have been active members for a total of forty years. They shall have all of the privileges of active membership and shall be exempt from paying dues and assessments.

Our honor roll now numbers 65. The congratulations of the Society are extended to:

Seniority Number		*Date of Membership*
300	Walter H. Merrill	April 2, 1902
302	Robert S. Beale	April 2, 1902
303	Henry C. Macatee	April 2, 1902

304	Samuel H. Greene, Jr.	April 2, 1902
305	Edward E. Richardson	April 3, 1902
310	Howard W. Barker	October 1, 1902
317	A. B. Bennett	October 12, 1902
318	Louis S. Greene	October 14, 1902
319	George R. Sorrell	October 16, 1902

who have for forty years been on the roster, meeting all dues and assessments and lending their support to the Society by frequent attendance. Their status is now elevated to Life Membership.

NEWS AND PERSONALS

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons is offering its annual **Foundation Prize** of $150 to eligible contestants, which shall include (a) interns, residents or graduate students in Obstetrics, Gynecology or Abdominal Surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching Obstetrics, Gynecology or Abdominal Surgery. Manuscripts must be limited to 5,000 words and presented under a nom de plume to the Secretary of the Association, Dr. James R. Bloss, 418 Eleventh Street, Huntington, West Virginia, before June 1. Three copies of the manuscript and illustrations must be furnished and should be accompanied with a sealed envelope bearing the nom-de-plume and the name and address of the contestant.

The Research Council on Problems of Alcohol announces a $1,000 award for outstanding research on alcoholism during 1943 which will contribute "new knowledge, in some branch of medicine, biology or sociology, important to the understanding or prevention or treatment of alcoholism." The project may have been inaugurated at any time in the past or during the year 1943, provided (a) that a substantial part of the work be carried on during the year 1943, (b) that it be developed to a point at which significant conclusions are possible before the end of the year, and (c) that a report on the work has not been previously announced and described before a scientific body or previously published. It is desirable, but not necessary, that those planning to work for the award advise the Council of such intention before March 1, 1943, in order to prevent undesirable duplication of effort. A report on the work and resulting conclusions must be submitted to the Director, Research Council on Problems of Alcohol, Pondfield Road West, Bronxville, New York, on or before February 15, 1944. If no report of work of outstanding merit is submitted during 1943, the award will be postponed until another year.

The American College of Physicians is arranging a Regional meeting to be held sometime in April in Washington. This meeting is designed primarily for members of the College in Maryland, Virginia, West Virginia, Delaware and the District of Columbia, but all members of the College are invited to attend. The meeting will be a one-day meeting, half of which will be given at the Army Medical Center and half at the National Naval Medical Center. A luncheon will be held with short addresses by prominent men.

The 17th Annual Meeting of the National Conference on Medical Service will convene at the Palmer House, Chicago, February 14, to be held in connection with the **Congress on Medical Education and Licensure,** February 15 and 16.

The Metropolitan Life Insurance Company, in coöperation with the American Heart Association, the Academy of Pediatrics, and the Crippled Children's Division of the U. S. Children's Bureau, is launching an intensive educational program on rheumatic fever and heart disease. The public will be acquainted with the program through literature, addresses, radio programs, newspaper articles and advertisements. The Metropolitan is using the services of its Field Staff in three thousand communities and expects to reach over a million homes. Literature will also be distributed to the medical profession, setting forth the modern concept of the disease, criteria for its early diagnosis and treatment, methods of managing the disease and recognizing its cardiac involvements. **Dr. Ethel C. Dunham** is a member of the committee which is preparing this booklet for physicians.

Group Hospitalization, Inc., is opening its books again to new members on March 1. Applications must be in the hands of the Secretary of the Society by February 20 in order to make the contracts effective as of March 1. The Doctors' Group now numbers 376.

The Physical Therapy Section of Georgetown University Hospital announces that it is equipped to give ultraviolet irradiation of the blood by the Knott technic.

The George Washington University Medical Society is sponsoring a "Victory Dinner" and Alumni Reunion, February 20, at the Mayflower Hotel. During the afternoon guests are invited to attend a Clinical-Pathological Conference at the School of Medicine, to be conducted by Drs. Walter A. Bloedorn and Roger M. Choisser, and a lecture demonstration in ophthalmology by Dr. William T. Davis.

The Section on Pediatrics devoted its meeting, January 28, to "The Care and Education of Deaf Children in the District of Columbia." The meeting was held in the Kendall School Auditorium of the Columbia Institution for the Deaf.

Dr. George C. Ham, Research Associate, University of Virginia, addressed the **Section on Opthalmology and Otolaryngology,** January 20, on the subject, "Objectives and Results of Research in Aviation Medicine."

The Section on Neurology and Psychiatry presented the following program, February 4: "The Consultation Service (a Program for Preventive Psychiatry in the Army Replacement Center)," Major Bernard A. Cruvant, M.C., U. S. A.; "Foville's Syndrome," Drs. Walter Freeman and Harvey Ammerman.

The Washington Orthopedic Club elected new officers, December 14, as follows:

Dr. Julius S. Neviaser, *President*; Dr. Paul J. O'Donnell, *Vice President*; Dr. Julius J. Radice, *Secretary-Treasurer*.

The Club meets the second Monday of each month alternately at Walter Reed Hospital and the Naval Hospital at Bethesda, Md. Orthopedists stationed at these hospitals are invited to attend.

The Medical Society of St. Elizabeths Hospital met January 25 in the Red Cross Building at the Hospital. Colonel Roy D. Halloran, M.C., U.S.A., Office of the Surgeon General, gave an address on "Organized Neuropsychiatry in the Army."

The Clinico-Pathological Society met February 2 at 1835 Eye St., N.W. Dr. A. C. Christie was host. Comdr. B. W. Hogan, M.C., U.S.N., described "Medical Problems on the U.S.S. Aircraft Carrier 'Wasp' Prior to and During Its Torpedoing."

The District of Columbia Dental Society is sponsoring a comprehensive Civilian Defense Program for Emergency Relief. An attractive leaflet describing the program has been received at the Society's office and lists a number of Medical Society members who are assisting with talks and demonstrations. They are as follows:

February 2—"The Choice of Anesthesia, Technic and Various Methods," Dr. C. N. Chipman; "Tracheotomy Indications and Technic as an Emergency Measure," Dr. G. B. Trible
February 9—"The Control of Hemorrhage in the Mouth," Dr. Sterling V. Mead
March 2—"Plastic Surgery of the Face and Jaws Following Injuries," Dr. Robert E. Moran
March 23—"The Medical Treatment of Heart and Respiratory Embarrassment or Failure," Dr. Paul F. Dickens
April 6—"Chemotherapy," Dr. Harry F. Dowling
April 13—"The Management of Shock," Dr. Daniel F. Lynch

Dr. William DeKleine has instructed two classes in Red Cross First Aid for the Dental Society.

Colonel Daniel L. Borden addressed the **George Washington University Medical Society,** January 23, on "Casualties and Medical Problems of Tank Warfare."

Dr. Henry H. Hazen was honored by Life Membership in the American Social Hygiene Association at a luncheon meeting of the District Social Hygiene Society, February 2, for his "outstanding services to the cause of public health practice, research and teaching." Major General Merritte W. Ireland, retired, former Surgeon General of the U. S. Army, read the citation.

Dr. Hazen has devoted most of his 35 years as practicing physician to public health work. He has been President of the District Social Hygiene Society since 1937, Consulting Dermatologist for the U. S. Public Health Service, and Chairman of the Joint Committee of the American Social Hygiene Association and U. S. Public Health Service. At the meeting, which was in joint observance of National Social Hygiene Day (February 3) and the

25th anniversary of the District Social Hygiene Society, Dr. Hazen mentioned the gains which have been made in this field and outlined the local needs at this time.

General Hugh S. Cumming, an Associate Member of the Society, was elected to membership in the American Foundation for Tropical Medicine at its annual meeting in New York City, January 19.

The old **Tuberculosis Hospital** at 14th and Upshur Streets, which was replaced by Glenn Dale Sanitarium several years ago, has been renovated and will be used for convalescent tubercular patients.

A new **District health clinic** for preschool children was opened January 19 at 101 Ridge Road, S.E., under the direction of **Dr. Ella Oppenheimer**, Director of the Bureau of Maternal and Child Welfare.

CORRESPONDENCE

WASHINGTON, D. C., December 31, 1942

TO THE EDITORS OF THE MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA:

I have perused the December issue of the MEDICAL ANNALS from "Lesson from Pearl Harbor" to "Pablum." I was particularly interested in the various discussions of the Procurement and Assignment Service, and I would say in general that it reminded me of the old "off again, on again" system, one page stating it failed and the next page stating it was superb.

Mountin on page 469 states that the system failed and then adds, "This failure reflects the shortcomings of any system based upon voluntary action in the face of a national emergency." Further he states: "It seems evident, however, that special measures, different from any so far adopted, will have to be taken if the primary purposes of procurement and assignment are to be achieved." He further states: "It would seem that there can be no effective redistribution of physicians, or even selective recruitment for military purposes, unless the power to effect these measures is vested in some governmental agency operating under a law."

Turn now if you will to page 484, and it states that Senator Claude Pepper feels that the Service has failed in its purpose. But on the opposite page, the eminent Dr. Frank H. Lahey states that "it has met the demands," and the all-high Dr. Morris Fishbein says: "The Procurement and Assignment Board has done a most competent and efficient job all the way through." Then on page 486, further editorial comment states as follows: "The facts to date are that whatever the reason, the Service has 'procured' but not 'assigned.'"

Is it not true that all doctors who have been procured have been assigned to the military services?

What does Dr. F. X. McGovern have to say about the matter? He should have more to say than anybody about the matter locally.

And finally, turn to page 492 under the heading, "Physicians' Response Praised." We find a 95 per cent job done for the procurement objective of medical officers for the armed forces.

I remain in a state of bewilderment. Can one of the noble editors of the ANNALS give us a simple, clear statement as to whether Procurement and Assignment has been of service or not? Surely one will recognize that there are difficulties to overcome, and no system I ever heard of is 100 per cent effective. If this volunteer job established by and under the direction of the medical profession has been a failure, would it be logical to assume that any other volunteer job so established might fail, especially when such eminent authorities think that a law is required? I would simply ask this, has the Civilian Defense program failed? . . .

JOHN A. REED, M.D.

★ Editors of the MEDICAL ANNALS believe that differences of opinion are stimulating and lead to the truth. They did not say that the Procurement and Assignment Service had failed. On the contrary, they praised the success attendant upon its efforts to obtain physicians for the armed forces. However, they did point out shortcomings which must be and are being remedied.

The ANNALS is fortunate in having in Dr. Reed a "cover to cover" reader.

WASHINGTON, D. C., January 29, 1943

MISS LOUISE ECKBURG
MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA
WASHINGTON, D. C.

DEAR MISS ECKBURG:

I should like to thank you on behalf of the Union of South Africa Government Supply Mission for your very great kindness in collecting for us the Medical Journals which we are about to forward to medical officers on active service in the South African Medical Corps.

Your personal interest is very much appreciated. I am sure that the Director General of War Supplies, who has been concerned about the lack of enough medical literature for the men in the field, will welcome your very generous contribution.

Yours very truly,
H. O. HOFMEYR
GOVERNMENT SUPPLY MISSION

BOOK REVIEW

The Answer Is . . . Your Nerves. ARNOLD S. JACKSON, M.D., F.A.C.S., Madison, Wisconsin. Pp. 197. Price, cloth, $2.00. Madison: Kilgore Printing Company, 1942.

"Since today two out of every three patients who consult the average physician or surgeon suffer from some nervous disorder, there are obviously many who never reach the psychiatrists and neurologists. . . . A clear explanation of the cause of their trouble, the eradication of this cause, and sound advice and assurance as to the future may eliminate the source of the nervous condition." It is not sufficient, the author of this book says, to tell the patient to forget about his troubles and that there is nothing wrong with him. He needs to be told the whys and wherefores. And that is the purpose of "The Answer Is . . . YOUR NERVES."

Written for the intelligent lay person, the book is of invaluable assistance to the busy physician. He can make it "must" reading for those patients who need it. He can also read the book with profit himself. Perhaps it will make him less intolerant of neurotically inclined persons and more successful in dealing with them.

Although living conditions have changed greatly in the short time since Dr. Jackson wrote this volume, the same problems exist for the average individual. If anything, his existence is becoming increasingly difficult. Dr. Jackson's book, therefore, takes on an increasing importance as a useful guide to normal living.

A novel feature of this volume is the chapter on religion and "nerves" contributed by the Reverend Edwin O. Kennedy, D.D.

T. W.

BENJAMIN CECIL PERRY, M.D.
(1881-1943)

Dr. Benjamin C. Perry, an Associate Member of the Medical Society of the District of Columbia since 1920, died January 8, 1943, at Georgetown Hospital after an illness over a period of two years. His home was at 7200 Hampden Lane, Bethesda, Md.

Dr. Perry was born January 1, 1881, in Kensington, Maryland. He received his degree in medicine from Baltimore Medical College in 1906 and shortly thereafter began his medical practice in Frederick, Md. Ten years later he moved to Bethesda, where he devoted his life to the practice of medicine and to numerous civic affairs.

At one time he was President of the Montgomery County Board of Commissioners and Chairman of the Maryland-National Capital Park and Planning Commission. He was a member of the Planning Commission at the time of his death. He served two six-year terms on the Maryland State Board of Health, and when he became ill, was serving his third term.

Among the medical organizations to which he belonged were the American Medical Association, the Montgomery County Medical Society, and the Maryland, Virginia and District of Columbia Medical Society. He had held the office of President of the last.

Surviving are two daughters, Mrs. Cecil Carusi and Mrs. Isabel Emory of Washington.

THOMAS K. CONRAD, M.D.
(1877-1943)

Dr. Thomas K. Conrad died January 30, 1943, in Mount Alto Hospital, following a long illness. He resided at 5905 Connecticut Avenue, Chevy Chase, Maryland.

Born in Front Royal, Virginia, April 3, 1877, Dr. Conrad attended Randolph Macon Academy and Roanoke College. A year after graduating from Georgetown University in 1908, he began his practice of medicine in Chevy Chase, Maryland.

During World War I he served with the United States Army and held a reserve commission of Major following the Armistice.

He was a Fellow of the American Medical Association, and a member of the Medical and Chirurgical Faculty of Maryland and the Montgomery County Medical Society. He had held Associate Membership in the District Medical Society since 1917, with the exception of a brief period when he was affiliated as an Active member.

Surviving are his wife, Mrs. Keren Conrad; a daughter, Miss Josephine Conrad; a sister, Mrs. D. J. Waters of Clarendon, Va.; and a brother, Henry Conrad of Washington.

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CONTRIBUTIONS OF MEDICINE TO THE NATION*

FRANK H. LAHEY, M.D., F.A.C.S.

Chairman, Directing Board, Procurement and Assignment Service for Physicians, Dentists and Veterinarians; Past President, American Medical Association

IT IS a great privilege to address you on this the One Hundred Twenty-fifth Anniversary of the Medical Society of the District of Columbia. I would be a bit more at ease if I were to discuss a purely medical subject; however, I am certain that the "Contributions of Medicine to the Nation" today interest us all. I am certain that both the medical profession and the laity agree that in every war medicine has contributed voluntarily and wholeheartedly. We must not forget, too, that the outcome of a war is determined in no small part by the contributions of medicine both during and following the war period.

I prophesied in Cleveland in June, 1941, when the Procurement and Assignment Service was first suggested, that the time would come when the word "procurement" could be eliminated almost entirely and the title abbreviated to "assignment." Although medicine seemed at first a little reluctant in war participation, it was perhaps no more so than was the entire country, and if at first it also seemed a little complacent, it was no more so, I am certain, than was the entire country. Even then I knew there was no doubt whatever about the willingness of medicine to participate unselfishly and completely, and everyone today, I believe, would agree that it has fulfilled my expectations.

As I travel the country the subject that seems of greatest interest to the people, the thing they seem most apprehensive about, is whether there are enough physicians for the armed forces and the civilian population. Regardless of the probable size of the armed forces, there will, I believe, be reasonably adequate medical care. This statement is based on quite accurate information concerning the number of physicians and their qualifications.

We must all, on the other hand, realize that we have been most wasteful of the services of which we have had plenty, which include the services of physicians, dentists and veterinarians. The foregoing statement, therefore, depends on what you think is enough. If you think there are physicians enough to call them for every trivial ailment, there will not be enough. If you think you can delay calling a physician until late at night, there will not be enough. If you think you can endanger your health by being reckless in your habits, there will not be enough. You must be equally as reasonable about your physician as about gasoline, rubber, food, and numerous other commodities. With reasonable coöperation between the public and the armed forces and medicine, there will be more physicians per thousand persons in the United States, no matter how large the Army and Navy become, than in any other country in the world.

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* Read before the Society, December 9, 1942.

An intelligent, comprehensive attitude concerning medical and dental care involves careful, broad viewing of the problem, so that we will not unnecessarily tax the medical and dental resources of this country, which, as you and I already know, are going to be taxed in everything to an unprecedented degree. You and I outstandingly wish to provide adequate medical care for the armed forces. You want your boy in Guadalcanal, New Guinea, Africa or Iceland to have the best of medical and other care, such as food, transportation and weapons. To meet this situation, we need, in addition to a healthy army, a healthy civilian population. Aggressiveness, as we all know, is closely related to good health and well-being. Courage is an admirable virtue, but in this present war already we have many times seen courage displayed futilely by countries ill equipped physically and emotionally to face critical situations, which has resulted in pitiably unprofitable sacrifices in terms of courageous endeavor and desired results.

Since wars have repeatedly been lost because of lack of good medical care, not only for the armed forces but also for the civilian population, the President of the United States with admirable foresight has tried through the Procurement and Assignment Service to evolve a plan whereby, we hope, good care can be provided for both the armed forces and the civilian population. The Procurement and Assignment Service has a Central Board here in Washington, which has accepted its responsibility to provide a safe supply of physicians, dentists and veterinarians for the armed forces, and likewise enough physicians for the civilian population. I believe that this plan was prompted by a suggestion from Surgeon General Thomas Parran after his return from a visit to England. The Procurement and Assignment Service was placed in the War Manpower Commission under Mr. Paul V. McNutt, who has given it a most gratifying degree of interest, understanding and support. Before I undertook the duties of chairman of the Procurement and Assignment Board, I had not known Mr. McNutt and had never before been to Washington in any work capacity. I came here with considerable apprehension about various persons, the government in general, and particularly my ability to accomplish things here. In order, however, that proper appreciation may be given to a real supporting effort, I should like to say that the Procurement and Assignment Service could ask for no better coöperation than it has had from Mr. McNutt and from the various agencies with which it has had to deal.

I watched with understandable apprehension the newspaper discussions about the probable director under whom the War Manpower Commission would eventually come, apprehension not because I feared I could not get on with any other person in authority, but because Mr. McNutt's coöperation and understanding of the situation with regard to medical, dental and veterinary manpower was of proven character. With no reflection on anyone considered in his place, it was with real relief that I learned that the War Manpower Commission was to continue under him. I have no interest in politics, hold no brief for anyone in Washington or out of it, for that matter, but I believe the help which we have had from him and his department deserves this statement.

The problem of obtaining physicians, dentists and veterinarians is not an easy one to handle. With absolutely no warning we received a requisition, for example, from Aviation for 6,100 physicians by July 1, 1942, and within a couple of months a requisition for 2,400 more. Again, this is not a criticism, because Aviation has had to do things in a hurry and so often the demand on them has also been without warning. When one realizes, however, that these demands had to be filled from the young age-group of physicians, that the physical standards were exceedingly high, that the physicians had to be drawn as evenly as possible from the entire country, and that these requisitions and those from the Army and Navy, which were much larger, had to be met promptly, medicine has indeed performed creditably when it has met these demands, not on time but ahead of time.

If one is informed about this country's resources in physicians as compared with the situation in other countries, one can appreciate to some extent what one may expect in medical care. Largely due to the efforts of the American Medical Association, we know that we have approximately 179,000 physicians in the country. We have detailed information concerning these physicians, such as their locations, their abilities, and their ages. Over the years the American Medical Association has maintained a roster of our medical personnel, which contains information concerning age, qualifications, school of graduation, location, and even the delinquencies of a large number of the physicians of the United States.

There were 2,000 full-time physicians in the armed forces before the war. There were 7,000 physicians who were house officers in hospitals. There were 5,000 physicians who were residents in hospitals. There were 15,000 physicians who were in full-time positions, not treating patients.

There were 28,000 physicians over 65 years of age, which the Procurement and Assignment Service has arbitrarily assumed could be utilized as effective in terms of only 33 per cent. Therefore, we must subtract from 27,000 or 28,000, approximately 18,000 physicians. If we allow the full number allotted to the armed forces, which I cannot state, approximately 80,000 physicians will remain for the civilian population. If we estimate the population of the United States as approximately 130,000,000, of which about 10,000,000 are in the armed services or related to it and cared for in that group, we then have approximately 80,000 physicians for 120-000,000 people. That is 1 physician to 1,500 population, which is really adequate. Whatever the number of physicians, dentists and veterinarians is for the armed forces, it supplies 6.5 physicians per thousand men, 1.5 dentists, and 0.75 veterinarians. This is a just and fair prorated allotment of physicians to the civilian population and to the armed forces, and it is the purpose of the Procurement and Assignment Service with the continuing coöperation of the Surgeons General to see that such an equitable prorata of physicians is maintained.

How do these figures compare with those of other countries? England has today 4.3 physicians per thousand in the armed forces and 1 physician to 2,700 civilian population. Germany, from the best sources available, has approximately 1 physician to 12,000 population. And so the United States is pretty well off in terms of medical care for the civilian population and the armed forces.

When the President established the Procurement and Assignment Service for medical personnel, he did so, I believe, on a basis as democratic as possible. The Central Board in Washington consists of Dr. James E. Paullin, Atlanta, Georgia; Dr. Harvey B. Stone, Baltimore, Maryland; Dr. Harold S. Diehl, Minneapolis, Minnesota; Dr. C. Willard Camalier, Jr., Washington, D. C. (dentist), and myself. Its structure, made up as it is of corps area chairmen, with representatives from dentistry, medical schools, industry, hospitals and civilians, is democratic. Under the corps area committee and chairman is a state chairman with a dental representative; under that, county and district committees. In this way the organization extends down from the Central Board in Washington to every county and district in the United States.

In World War I physicians volunteered because of their patriotic spirit without any thought of shortage of medical care. There were areas with too many physicians and areas with not enough, and the present Procurement and Assignment Service was established in an effort to prevent this.

The basic plan of the Procurement and Assignment Service is a review of the status of every physician in the United States by his county group. His essentiality or nonessentiality is then reported to the state chairman, then to the corps area chairman, and finally, to the Central Board in Washington. Particularly the positions of those men of 45 and under were scrutinized as to essentiality, and if they were nonessential they were requested to seek commissions in the armed forces.

After this determination of essentiality or nonessentiality was completed, quotas were established for every state in the country. These quotas were balanced as to the population, urban and suburban—New York, mostly urban, as compared with Alabama, which is mostly suburban. They were balanced in terms of physicians per population and based on accurate and scientific studies on physician-hours as applied to patients. The states were then informed concerning the quotas to be filled by January 1, 1943.

In spite of these quotas and the fact that the Procurement and Assignment Service was instituted to provide physicians for the armed forces without depletion of civilian care, depletion has occurred in certain areas. This is particularly true in the South. In the North enlistments appear to be greater on the part of physicians in the country than in the large cities. Reluctance on the part of physicians to volunteer when found available by the Procurement and Assignment Service has occurred largely in the states with cities of large population, and in these states, California, Illinois, New York, Massachusetts, and Connecticut, the quotas have not as yet been filled.

Depletions have occurred in some areas because under a purely voluntary system it is impossible to prevent a physician from volunteering for the service. Under this volunteer system, as suggested by the government and as desired by medicine, the Procurement and Assignment Service possesses no authority to say to a man that he must go into service or he must stay at home. What has been accomplished is truly a credit to medicine, because it has been done entirely on a voluntary basis. We must not fail, however, to sympathize with the physician who is classified as essential and told to remain at home, because many factors may cause him to want to go into the service—patriotism, his position in the community, what his wife says to him, what his neighboring physician's wife says to his wife, and what he thinks his position in the community will be after the war. At times these obvious psychic and emotional factors will inevitably prompt a physician to disregard the requests of the Procurement and Assignment Service.

It is important for the public and for medicine itself to realize what the Procurement and Assignment Service has done in this undertaking. Perhaps medicine is apt to be a little overmodest. Medicine has been taught to be suspicious of blatancy. Its attitude has quite properly been, "He who seeks too much publicity may not be too sound in what he has to say." The Procurement and Assignment Service has perhaps been unduly reluctant to publicize or dramatize its accomplishments, and I am not sure that our people are used to that in a public agency. When I am made conscious of critical publicity in these trying times, I sometimes wonder if we in the Procurement and Assignment Service might not have been a little more dramatic about our accomplishments. Medicine has always had the feeling that if one has really done something worth while, that in itself is an adequate reward and that the accomplishment if worth while will publicize itself. That is all right, I believe, for most things medical, but I am not sure that it applies to this national undertaking. In national undertakings I am not at all sure that accomplishment like virtue is its own reward.

The Procurement and Assignment Service, through its state and county committees, has classified every physician within these United States as to essentiality and nonessentiality. It has surveyed the needs of all hospitals, medical schools, clinics, industries and communities in the maintenance of proper medical care, and has correlated, evaluated and corrected these data when necessary. When the Procurement and Assignment Service has felt that any of these figures were unfair, the data have been discussed with the group concerned, rearranged and readjusted until they seemed fair to the armed forces and to the civilian population.

The Procurement and Assignment Service has handled a tremendous number of personal problems for physicians, here in Washington at the Central Office, in the corps area chairmen's offices, and in the state chairmen's offices. In some instances these personal problems have been adjusted by personal interview and, in others, by mail. It has dealt with Selective Service, so ably represented here tonight by Colonel Rowntree, when deferment was necessary for obtaining a commission. General Hershey, Colonel Eanes and Colonel Rowntree have been most coöperative, most understanding, and always willing to do the right thing for physicians, dentists and veterinarians.

So that you may realize that the Procurement and Assignment Service has really been working, I should like to say that medicine, dentistry and veterinary medicine have already met the requisitions of the Army, Navy and Aviation for the year 1942 and met them not on December 31, 1942 but early in November, 1942.

Some states are below their quotas, as I have already said. Your district is over its quota, but I blush when I say that my own state, as well as Illinois, California, New York, Pennsylvania and Connecticut, is well below its quota. I hope and I believe, however, that by January 1 these states will be close to filling their allotments. It is interesting to note that in New York, the northern section, which is rural, has largely filled its quota, while the southern section, particularly New York City, is well below its quota. New York City is nearly 2,000 physicians below its quota. I regret that the provisions of the Selective Service law are such that we cannot make better use of Colonel Rowntree in Selective Service to correct this situation.

In addition to these accomplishments, the medical teaching program has been accelerated by the omission of vacation periods in medical schools, and consequently at least a thousand more physicians are being turned out each year. The graduation of new physicians each year is important because approximately 3,800 physicians, due to death, accident or disability, are dropped out of active medical service each year and must be replaced.

It is of interest, also, that the Procurement and Assignment Service, which is but the representative of medicine and the people, has dealt with a large number of district and community problems, and that it has dislocated 260 physicians in 158 communities in 29 different states, where, as the result of war industries or war camps, populations have been increased.

We hear critics of this undertaking, who so often are men who are not associated with medicine and have never actually dealt with medical problems, say that the problem of medical care could be solved very simply if we would only turn it over to the United States Public Health Service. No one has been more coöperative in this undertaking then Surgeon General Parran, but the U. S. Public Health Service does not want to handle this problem alone. He realizes, as does the Procurement and Assignment Service, that this is not a problem to be settled by one agency. It is one to be settled in coöperation with the U. S. Public Health Service, the Army, Navy, Aviation, and all civilian agencies. We know that the U. S. Public Health Service with its various agencies throughout the country is in an excellent position to obtain valuable information concerning areas depleted of medical care. The Procurement and Assignment Service knows that from them it can obtain prompt service in emergency areas, and it has already availed itself of these services.

It would be a pity if the critics of medicine and the Procurement and Assignment Service (with the best of intentions, I am sure) created in the minds of the public the idea that there was lack of harmony between the Procurement and Assignment Service and other government agencies, particularly the U. S. Public Health Service. We in the Procurement and Assignment Service have worked with Surgeon General Parran and General Draper in complete harmony and cooperation, and I feel certain that what both services wish is to employ all of their resources to provide the necessary medical care for all concerned. I feel certain that neither service has the slightest selfishness as to credit or publicity. If I were permitted to make a statement, without anyone feeling that I had the slightest bitterness, I would say that my criticism of these critics is their oversimplification of this undertaking. As one becomes familiar with this problem, its solution is by no means as simple as it appears on the surface. If the critics of the Procurement and Assignment Service had lived with this problem as we have, they would realize its ramifications, the prejudices with which we have to deal, and the complexity of the whole situation. This, together with the fact that other branches of effort in the country, excepting the armed forces, have accepted a noncompulsory program, makes one realize that without some of this experience with a purely voluntary effort, no one can say with authority how simple it would be to handle the problem this way or that way.

The Procurement and Assignment Service has of necessity had to set up its problems in a sequential manner, and because the urgency for physicians for the armed forces was so great, its priority problem was supplying physicians, dentists and veterinarians. That was a simple problem because the requisitions all came from the Army, Navy or Aviation. The desire to volunteer was great—the reward, obvious—uniform, self-satisfaction in one's conscience, public approval, and postwar position.

The Procurement and Assignment Service is now dealing with a much more difficult problem, that of dislocation. There are about 5,700,000 people dislocated in industry or in cantonments in these United States. Can the problem of medical care in these areas be handled by dislocations within the state, and if not, can we get physicians outside the state to meet these needs? We must first interpret what these overpopulated areas need in the way of physicians and then supply their needs, because just as we need men available on the front line, so we need men constantly available on the production line of airplanes, tanks, trucks and munitions. Since these men and their families need medical care, our next problem is evaluating needs in these communities and meeting them. Many of these areas have had their needs met by dislocation of physicians within the state. Some states are sending public health officers into these areas.

Within the coming week there will be meetings of the Procurement and Assignment Service in corps areas all over the country, at which will be present members of the Central Board, corps area chairmen, state chairmen, labor, industry and civilians, to review the needs in these communities, and what has been accomplished at state and national levels. Of those physicians who stated in the national questionnaire that they would be willing to be dislocated, we are ascertaining which ones really meant it, and that, I think, is the most difficult problem we yet have had to undertake.

So much for 1942. What are the problems for 1943? During 1942 we have had a surplus of physicians, but the surplus is largely used up. Within 1943 we will undoubtedly be scraping the bottom of the barrel as relates to surplus physicians. Therefore, to meet the problem sensibly and logically, we are holding monthly meetings of Procurement and Assignment's Central Board with the Surgeon General of the Army, the Surgeon General of the Navy, the Surgeon General of Public Health, the Surgeon General of Aviation, a representative of Selective Service and of the Secretary of War, and Mr. McNutt. At these meetings we decide with regard to medical, dental and veterinary personnel, what can be had, what is left, and a fair apportionment and prorating of physicians, both for the civilian population and for the armed forces. This, it seems to me, now that the surplus is largely exhausted, is the sane and intelligent way to be sure that there is a just distribution of medical care.

We have also set up 1943 quotas, which, of course, are much more limited than those of 1942, because of the limited number of remaining physicians. The Army has willingly cut down its tables of organization. Those states, such as New Mexico, which exceeded their quotas in 1942, have been credited with these over-quota figures for 1943. Those states which are under their quotas have been charged with an under-quota figure weighted with the quota figure for 1943. So the quota figures for 1943 are just and fair and weighted against what was done in 1942. Army, Navy, Public Health and Aviation have accepted what they can have in numbers of physicians per month for 1943. If the war goes on several years and the number of physicians available to the civilian population is reduced, Army, Navy and Aviation will coöperate in reducing their organization tables on an equitable and fair basis. And so I think there really promises to be a fair distribution of physicians to all parts of the country.

One of the problems in the dislocation of physicians is state licensure, demanding as it does that physicians, dentists and veterinarians coming into a state pass the examinations or establish licensure by reciprocity, and also pay a fee. Viewing the problem as one of national war participation, I have been at times perhaps a little impatient concerning this. I have said that sometimes I get a little impatient with the smug complacency of peacetime practices and of peacetime dealings with legal problems, and that I think it is infinitely more sensible to adjust our laws and thoughts to the war than to attempt to adjust the war to them.

On the other hand, as I have dealt with the state chairmen and with the state boards of licensure, which met here last Saturday with the Procurement and Assignment Service, I have become more appreciative of their point of view and their desire to maintain a high level of medicine within their states. I have also become aware of the fact that they and their legislatures are and will make any effort to overcome this legal obstruction, and that in a number of states this obstruction no longer exists.

And now in closing, whenever I hear criticism of medicine's participation in the war effort, I am prompted to think, "Where is there a specialized group in the world, which, on an entirely volunteer basis has made greater sacrifices and more forehandedly met its many obligations in the war effort than has medicine?"

One of the greatest deficiencies in tuberculosis control programs has been the failure to make sufficient use of case-finding techniques in discovering the elderly person with undiagnosed pulmonary tuberculosis. There is much evidence that the older individual suffering from this disease frequently escapes recognition, and may act as a spreader of tuberculosis in the community for many years. Elderly tuberculous persons whose disease has become more or less stabilized may be robust, well nourished and present an appearance of complete health Many have only minor symptoms and frequently are able to work and to carry on a normal life. They often live out their natural life span, dying, not of tuberculosis, but of some entirely unrelated disease. R. E. MILLER AND BEATRICE HENDERSON: American Review of Tuberculosis, August, 1942.

SEGMENTAL DILATATION OF THE ANAL RING

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ANAL dilatation is an important procedure which the surgeon should accomplish with a minimum of trauma to the anus and without damage to the rectum and the surrounding structures. In order to improve the results of this treatment and to reduce the incidence of impairment of the functional efficiency of the anal sphincter which so often follows the usual methods of dilatation, I wish to present a method which has been used successfully by me in over four hundred cases, and to explain the reasons for its use.

To understand the potential dangers of improper anal dilatation and the means of avoiding them, it will be worth while to consider briefly the extremely complex anatomic structures involved. The observations of Hiller[1] and Levy[2] clarify the relationships obtaining in this region. Hiller[1] reminds us that the external anal sphincter consists neither entirely of fibers encircling the anus nor of fibers extending anteriorly or posteriorly, but of a mixture of the two, varying in the individual case. The arrangement of the muscle fibers is shown in figure 1. From this diagram it will be seen that the most robust portion of the sphincter ani externus lies in the lateral muscle bundles.

Only in some cases can the exact anatomic arrangement of the fibers of the external sphincter be accurately determined by palpation. It is seen, however, that the muscle fibers are invariably more numerous in the lateral segments of the anal circumference than they are either anteriorly or posteriorly. The least distensible and most fibrous points correspond to the anterior and posterior commissures, the former because of the attachment to the median tendon and transverse perineal muscles, the latter because of the attachment to the rectococcygeal muscle of Treitz, and both because of "the great accumulation of fibro-elastic terminations of longitudinal bowel fibers fixing the anterior and posterior commissures" (Hiller). Also, because of the ingress and egress of the vascular and nerve supply at certain rather fixed points, there are other relatively weak areas. These points correspond to the positions of 5 and 7 o'clock,

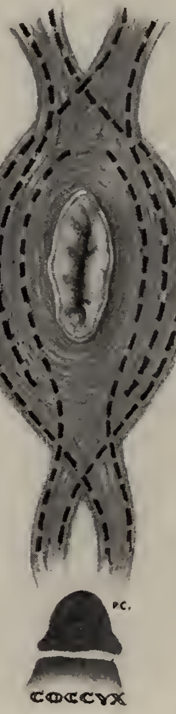

FIG. 1. Diagram of muscle structure of the sphincter ani externus, showing direction of the long axis of the fibers.

posteriorly (fig. 2). The fixity of the posterior commissure and the diminution in size of the external sphincter at this point, due to the contribution of a varying proportion of its fibers to the anococcygeal muscle, contribute to the potential weakness of this area. Likewise, the fixity of the anterior commissure and the contribution of the circular fibers in varying proportions to the perineal body make this the next weakest point. Figure 2 shows the conspicuous points of weakness of the anal ring.

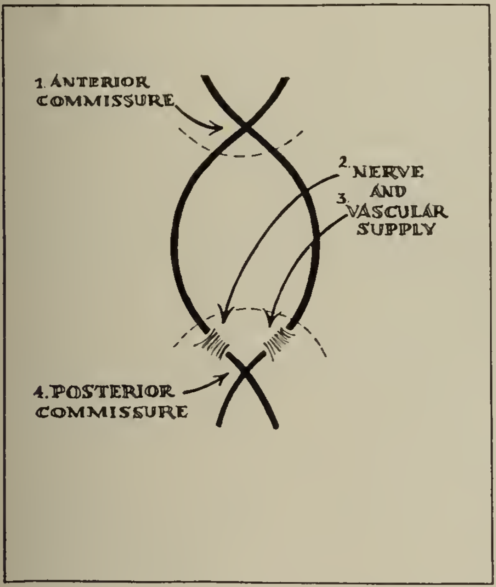

FIG. 2. Diagram of weak points of the anal musculature.

Following chronic inflammatory processes such as proctitis, cryptitis, fissures, etc., a secondary contracture of the anal canal is produced by an increased fibrous development in the skin, mucosa, and the subepithelial recticulum of the anus. This was described by Miles[3] in 1918 and designated as pectenosis.

There is a practical application, clinically, in all the foregoing facts, since in performing a therapeutic dilatation the use of radial or side-to-side dilatation which is so commonly practised must be avoided (fig. 3). Nor should the anteroposterior type of stretching be used. Either method may in some instances produce incontinence, not only because of damage to the muscle but more particularly by injury and separation of the nerve and arterial blood supply, since, when a dilating force is applied radially to a circle, the weakest point is the first to give. Many commonly used instruments have the same disadvantage.

The surgical procedures in which anal dilatation is indicated are hemorrhoidectomy (for internal and external hemorrhoids); fissures, acute and chronic; surgical treatment of anomalies such as atresia and imperforate anus; stricture; pectenosis; chronic proctocryptitis; proctitis; relief of fecal impaction; extraction of foreign bodies from the rectum; repair of third degree lacerations and plastic repair of anal sphincters; and enteroanastomosis.

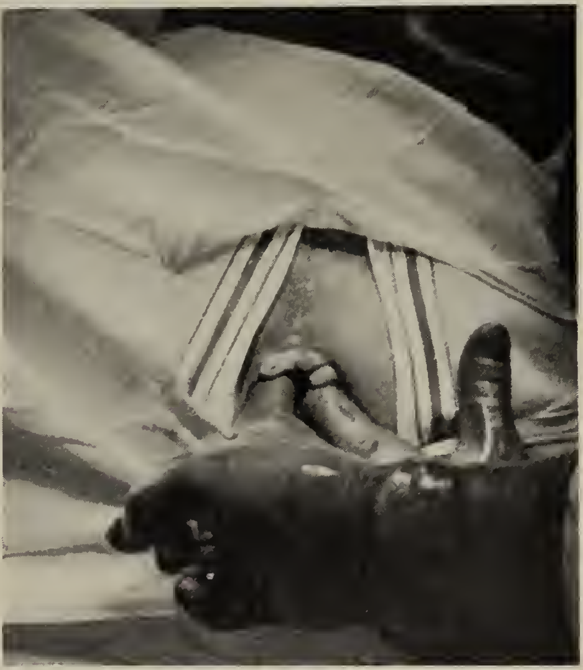

FIG. 3. Commonly practised method of dilating the anus.

The following conditions constitute contraindications to dilatation of the anus: acute inflammation or infection in the anorectal region; syphilis, uncontrolled or untreated; spinal cord disease, tabes, etc.; asthenic states and debilitating disease; rectal prolapse; and malignancy.

With the above indications and contraindications in mind, a proper method of dilatation deserves consideration. All procedures which tear the tissues or divulse them should be avoided when an effort is being made to stretch the lateral segments of the anal ring.

After the patient is anesthetized and the well-lubricated digits have been introduced, the lateral bands are grasped firmly between the thumb and the forefinger as illustrated in figure 4. The segmental dilatation in the direction of the fibers of the external sphincter is now begun, one lateral arc of the anal ring being stretched, then the other. Particular attention should be given to gently "ironing out" the fibrous irregularities in the lateral arcs, avoiding the anterior and posterior commissures and their adjacent points of structural weakness. In the use of this method, as with other methods of dilatation, great care should be exercised to avoid needless traumatization, wide divulsion, or forceful separation of the segments. Multiple acupunctures of the perianal skin and varices are made to drain the congested area and insure freedom from postoperative pain, which is caused by spasm of the sphincter and swelling due to trauma. Dilatation minimizes spasm. Drainage by acupuncture reduces swelling.

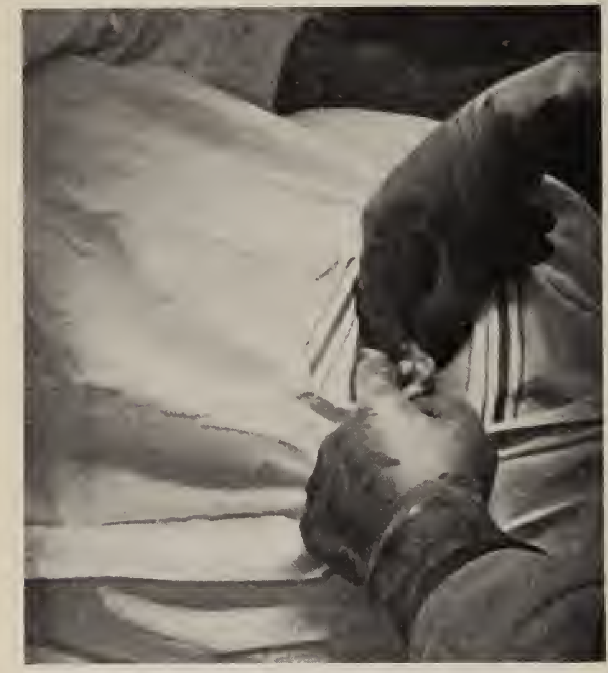

Fig. 4. A method of dilating the lateral segments of the anal musculature.

The advantages of this method, by which the fibers are pulled in the direction of their long axis, as compared with the more commonly used method in which the dilating force is in the direction of a plane at right angles to the fibers of the more robust segments, are apparent. The immediate effects are to produce for a few days a partial loss of control by provoking a temporary partial paralysis or paresis. This minimizes postoperative swelling and sphincter spasm, a combination which always produces pain, embarasses the circulation, and favors infection. The partial paralysis also is desirable in that it obviates the necessity of using plugs, "whistles," or packings, and of injecting anesthetic substances. The increase in the diameter of the anal orifice reduces the effort of straining, minimizes trauma during defecation, and relieves constipation. The skin irregularities are lessened and drainage of the crypts is improved.

After a segmental dilatation has been performed on the anesthetized patient, it is then possible to do the necessary follow-up dilatations without an anesthetic. This in turn prevents any tendency to "further fibrosis" as emphasized by Morgan[4] in his warnings against divulsion of the anus.

All of the above results reduce the factors which are conducive to the continuance or the development of chronic conditions such as fissures, proctitis, or cryptitis, and the congestion of the anal ring and adjacent ischiorectal structures is lessened. Subsequent instrumental examination when necessary is facilitated.

In summary, anal dilatation is an important procedure that should be confined to the lateral segments of the anal circumference. Anatomic studies have shown that the potential points of weakness of the anal ring are at the posterior commissure, in the positions of 5 and 7 o'clock

(*Continued on page 130*)

THE EYE AND RELATED FUNCTIONAL DISTURBANCES*

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FOR thousands of years amongst peoples of all races, the belief in the power of the eye to inflict diseases and evils on persons by mere glance has been endemic. This belief has persisted throughout the ages and has been recognized alike by sacred writers, classical authors, fathers of the church, rabbis of the Talmud, philosophers and ancient and medieval physicians. Neither science, religion, nor laws have been able to eradicate this superstition from the human mind. The flashing of fire from the eyes of certain mythologic gods and Svengali's hypnotic stare are but two instances that one comes across in the literature.

Even today in our own country this belief in the "evil eye" is present in certain rural districts and in foreign settlements of large cities. I remember that about three years ago a young man came in to the eye clinic at the Episcopal Hospital wearing a pair of very dark sunglasses. When asked his complaint he stated he had "passion eyes." He explained this by saying that whenever he looked at a girl on the street she immediately followed him. Consequently he was wearing dark glasses to protect himself. This sort of thing, of course, is only of academic interest to the ophthalmologist, but it is a particular problem for the psychiatrist. There are, on the other hand, functional disturbances related to the eye which may assume considerable importance both from the standpoint of diagnosis and treatment.

All physicians are well aware that there is scarcely an organic disease which does not interfere with the normal pattern of a patient's personality; and, on the other hand, mental conflicts, emotional upsets, whether conscious or deeply buried in the unconscious mind, may produce disturbances of physiologic processes and even cause organic lesions.

This body-mind relationship is too frequently ignored. Schoenberg[1] recently in writing on the effect of emotional states on the induction of glaucoma quotes from Socrates, who 2,400 years ago said, "Just as you ought not attempt to cure eyes without head or head without body, so you should not treat body without soul."

I shall try to discuss some of these psychosomatic disturbances as they affect the eye. Because the sense of sight is usually the most highly regarded of all the senses, it is perhaps natural that it should be the one most often disturbed by psychic influences. On the other hand, impairment or loss of sight, or some interference with the normal mechanics of vision, by its effect on the mind of the individual very frequently is the origin of disturbed function elsewhere.

Of course, not every visually afflicted person develops functional disturbances, nor does every neurotic person become visually affected. Much depends upon the type of nervous system with which an individual is endowed. The same degree of defect in a person of sensitive and nervous disposition that will create disturbances in the functions of the body will in a phlegmatic, dull, unresponsive individual give rise to no reflexes whatever. Every ophthalmologist can recall numbers of patients, usually young men and women, who are relieved of headaches, photophobia, fatigue, etc., by wearing glasses which correct only the merest amount of farsightedness, even though they have enough accommodative powers in reserve to take care of many times that amount.

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* Read before the Georgetown Clinical Society, December 15, 1942.

On the other hand, there are many patients with relatively high degrees of refractive error or muscular imbalance who go through life quite free of symptoms of eyestrain and never feeling the need of glasses.

A particularly large group of people among whom functional disturbances of one kind or another are common are the presbyopes. These are the people, usually past 40, who are finding increasing difficulty in reading. It seems to me that neglected presbyopia, for which no adequate relief is sought, is often the cause of hypochondriasis and mild forms of melancholia. It may be due to fear of ensuing blindness, but perhaps more often, particularly in women, to this very definite indication of increasing age. Once these people are convinced that the change is a normal one, that every person must undergo it, and that a pair of reading glasses is all that is necessary to restore the failing vision, they usually become reconciled to their age and return to their normal mental state.

People of hypochondriacal tendencies fall into another group. Some perfectly trivial ocular condition, such as a mild, chronic conjunctivitis, or a recurring hyperemia of the conjunctiva may cause them to go from one doctor to another, hoping for relief and believing in all sorts of evil consequences. The same is true if they once become conscious of the shadows which the formed elements of the vitreous cast upon the retina and to which we give the name muscae volitantes. They are not caused by hypochondriasis, nor are they a symptom in one sense, but they are a condition which may greatly aggravate the mental disturbance.

The hysterias are another story. Fortunately, they are seen relatively infrequently in the average practice. The ophthalmologist's problem is one of diagnosis, because, as a rule, once a diagnosis is made, he is only too glad to refer the patient to a psychiatrist for treatment.

There are many ways in which hysteria manifests itself. As a rule, the patient is a young woman, who, following some emotional upset, fright, trifling injury, menstrual pain, etc., suddenly complains of loss of vision. There may be complete loss of vision or only partial. Usually both eyes are affected. If only one eye is affected, the other may follow suit even months later.

To establish the diagnosis of hysteria it is necessary to exclude ocular diseases which produce blindness without showing ophthalmoscopic signs, such as congenital amblyopia, and particularly retrobulbar neuritis. Obviously, complete blindness in the absence of ophthalmoscopic signs of optic nerve disease, and associated with normal pupillary reactions to light, would strongly suggest hysteria. However, it is possible in rare instances, temporarily at least, for the pupils to fail to respond to light, in which case the absence of the pupillary reflex would not necessarily exclude hysteria.

When partial blindness is complained of, testing the pupillary reflex is not helpful at all, and one must resort to other tests. The visual fields very often enable one to make the diagnosis.

The characteristic feature is pronounced inconsistency and variability of the fields. The fields may be reduced to a few degrees, a so-called gun-barrel field, but it is noted that such a patient when asked to walk through a room in which there are chairs and tables scattered about does not stumble against them, a thing he would certainly do if peripheral vision were lost.

The suggestibility of the patient and the variability and inconsistency of his responses enable a number of varieties of field defect to be developed by perimetric examination, such as the oscillating field, in which the test object is alternately seen and lost as it traverses each meridian, and the fatigue or spiral field, in which the field contracts in each successive meridian as the examination proceeds. Sometimes the fields for colors will show impossible reversals. All these changes are related to the mode of examination and are the result of suggestion.

By varying the distance at which the test is made one can bring out many discrepancies. Ordinarily, the greater the distance at which the field is taken, the larger the field. But in hysteria distance may not alter the size of the field.

Tests such as are used for the detection of malingerers may be used with equal success in hysterical blindness of one eye. In one such test the patient is given a book or paper to read aloud. A pencil is then inserted vertically between the patient's eyes and the page. If the patient continues to read uninterruptedly, he is obviously seeing with both eyes. In another test the patient is asked to look at a light across the room and a 10° prism, base out, is held over the allegedly blind eye. If the patient is really seeing with this eye it will involuntarily move inward for the sake of single vision.

It is always well to have a number of such tests available because if one test does not work another one might.

In most cases of hysterical blindness, vision is ultimately recovered. The duration of the blindness, however, may vary considerably. Usually the attack is transitory, lasting for a few hours, but sometimes it may persist for months and even years.

In addition to impairment of vision, hysteria may manifest itself in a number of other ways as, for example, by ptosis, spasm of the lids, anesthesia of the cornea and conjunctiva, nystagmus, conjugate deviation and convergent squint.

Hysterical ptosis does not appear different from the common paralytic type. Usually it is bilateral. Pressure on the supraorbital nerve may relieve it. In hysterical ptosis the significant thing is that the patient does not try to help raise the eyelids by contraction of the frontalis.

Hysterical blepharospasm is usually bilateral, although I recently saw Dr. Shapiro's movie on metrazol shock therapy in which he demonstrated a young girl with unilateral hysterical blepharospasm. The eyes close and remain closed as in sleep for hours, days or months; and then they may be suddenly opened. At times opening may be brought about artificially by finding pressure points over the supraorbital or infraorbital nerves, and at times the point may be outside of the fifth or seventh nerve area.

Many patients of the hysterical type complain of marked sensitivity to light, tearing, headache, pains and imperfect eye endurance.

In extreme cases the hysteria may manifest itself in self-injury or mutilation. Some hysterics bring irritating substances in contact with their eyes to cause congestion and excite sympathy and may even scratch their corneas with pins. I remember one such patient who came to the eye clinic at St. Elizabeths with a peculiar type of keratitis, unlike anything I had seen before. She failed to respond to treatment until she was caught running a fine-tooth comb up and down across the cornea.

Hysterical girls sometimes pull out their eyelashes, and to the result of this performance Gifford has given the name "hysterical alopecia of the eyelids."

In another extreme case which I saw about four years ago at St. Elizabeths Hospital the patient was convinced he was harboring a cancer in his eye. On several occasions he had succeeded in popping the eye out of the orbit with his thumb, but each time it was possible to push it back. Finally, he did the job so well that the eye had to be enucleated.

A problem which is frequently overlooked is the effect of eye dominance on the ease with which a child learns to read. Not infrequently a child is brought to the office because he is having great difficulty in learning to read. The teacher has been sending notes home suggesting an eye examination and this is finally carried out. At this point the ophthalmologist too frequently ignores the importance of eye dominance and handedness.

In sighting an object, one eye comes to rest on an object and fixates it. This sighting is due to the action of muscles innervated from the cortex of the opposite side. The parallelism of the other eye in muscular functions requires it likewise to stop and focus on the object fixated by the dominant eye. The eye which fixates the object for stabilizing the direct and binocular vision is the sighting eye, or dominant eye. The dominant eye does not depend on refractive error or organic differences except a gross defect which renders vision in one eye much poorer than the other, in which case it is imperative for the subject to depend upon the unimpaired eye.

To determine the master eye, the simplest test is to ask the subject to look through a small hole in a piece of paper held at arm's length with both hands, at a distant object. The eye preferred is usually the sighting eye.

It is also essential to differentiate handedness. Unilateral control of eye and hand is the common rule, but contralateral control tends to create muscular and visual confusion.

Educational complications are fewer if a unilateral status is native and maintained. Some confusion in learning is suffered by many persons who are left-eyed and left-handed, but their difficulties are tremendously increased if the original left-handed status becomes converted by training to right-handedness.

Of course, other factors, such as personality, intelligence and emotional stability, are important, so that all children who have crossed dominance do not acquire educational disabilities.

The symptoms are diverse, varying from word-blindness to simple reversal of figures. The writing of figures, letters or words in reverse, the so-called mirror-writing, is the most striking symptom. A considerable proportion have some limitation of speech, such as stammering. Reading is a basic factor in education, and a child who cannot learn to read is apt to develop behavior disorders of various kinds, resulting in secondary symptoms, such as tantrums, truancy, crying, disobedience, timidity, and a general state of unhappiness.

The earlier the pathologic phase is recognized the better for adequate treatment.

The management of eye dominance has been well outlined by Wile,[2] who divides it into four main elements:

The first involves the reëducation of the family concerning the meaning of the child's behavior and its relation to eye-hand dominance. Lack of understanding and coöperation of the parents will seriously hamper improvement.

The second line of treatment calls for education of the school as to the nature and meaning of the scholastic inadequacy of the child so that special remedial training can be instituted.

The third factor, and usually the first step because it is at this point that the proper diagnosis is usually made, is the correction of all eye defects. As a matter of fact, preschool examinations should be required to determine eye dominance as well as visual defects.

The fourth phase of treatment is concerned with conversion of the child to a unilateral dominance if at all possible. This is accomplished by various means, usually by patching the non-dominant eye and by drawing or writing exercises on a cheiroscope requiring the use of the homolateral hand and eye.

Finally I would like to discuss, briefly, the effect of true blindness upon the mentality, and what may be expected when vision is restored in such cases.

The question is often asked as to whether the mental state of those born congenitally blind differs from that of persons born with all their faculties. The answer is that blindness does not affect the mind in its development, and the congenitally blind possess as good a mentality as their fellows.

It is also a matter of experience that people with healthy minds, who have lost their sight after their mental powers have been developed, suffer no impairment of reason apart from the general depression which naturally results from the loss of so precious a faculty.

In individuals, however, who are intellectually weak, it can be readily understood how the loss of sight might be of serious consequence, even sufficient perhaps to cause insanity. In spite of this, blindness as a factor in the production of insanity is but seldom mentioned in psychiatric literature.

I am convinced, however, that the relationship between blindness and insanity is much more common than is generally supposed.

I would like to mention briefly three cases which are especially significant, for they demonstrate that not only can insanity be traced to loss of sight but that the relief of blindness by operation can restore to normal the mental condition.

The first case is that of a woman aged 62 who held a responsible job in the government. She developed a cataract in the right eye and was operated on at the Episcopal Hospital. A severe iritis developed following the operation and vision was lost. A few months later the left eye vision was so reduced by a maturing cataract that it became necessary for her to leave her job. She became very despondent, had fits of depression, and absolutely refused to permit an operation on the left eye. As time went by she began to complain of severe abdominal pains, although no cause for these could be found. Following an attempt at suicide she was committed to Gallinger Hospital and then to St. Elizabeths. When I first saw her there the iritis was still active in the right eye, and the eye was painful. Her condition was one of extreme depression. The iritis subsided after a month of treatment, and permission was obtained from her family for operation on the left eye. This was done under evipal and a successful result obtained. As soon as possible glasses were ordered and the improvement in her mental condition was amazing. From an extremely depressed individual she changed to an alert, smiling, coöperative patient, whose abdominal symptoms were entirely gone. She was discharged from the hospital in about two months and has been to my office several times since. She has recently returned to work.

The second case was that of a man aged 65 years, a Spanish-American War veteran and a resident in the Soldiers' Home. This man, who had always been a cheerful, pleasant person, had with the onset of blindness changed to a morose, antagonistic, uncoöperative individual. He was transferred to St. Elizabeths Hospital because he proved too difficult for handling at the Home. Upon request of the psychiatric staff he was operated upon, the more mature cataract being removed. He made an uneventful recovery from the operation and improved so much mentally that it was possible later to return him to the Home.

The third case was a feeble-minded woman of 50 who had been a patient at St. Elizabeths Hospital for a number of years. She was a perfectly harmless person for whom the nurses were always able to find some simple task on the wards and which she was always glad to do. However, with the onset of blindness she became most obstreperous, sometimes striking nurses and patients, and was quite a problem. She was finally operated on under avertin anesthesia. Following the recovery of her vision due to removal of her cataract she reverted to her former pleasant self and has since requested that the other eye be operated on. This has been done and she is now once again a help instead of a hindrance to the staff.

In concluding, I would like to quote from Fuchs, who said, "We must remember we are treating patients, not eyes, and must therefore take into consideration all the physical and mental factors which may affect their outlook upon life."

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MODERN APPROACH TO CHILD GUIDANCE*

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CHILD guidance means bettering the adjustment of children to their immediate environment, with special reference to their emotional and social relationships, to the end that they may be free to develop, to the limit of their individual capacities, to well-balanced maturity. This function is exercised through the direct study and treatment of maladjusted children and the spread of the mental hygiene attitude throughout the agencies responsible for child care. Child guidance also helps the child by promoting parental understanding of, and sympathy for, his problems and by giving him, in the later years of childhood, a directive insight into his own behavior, thus affording a basis for the prevention of psychoses. Although clinics for this purpose require an elaborate setup, the family physician, if sufficiently interested, can produce satisfactory results.[1]

A proper study elicits the assets of the problem child as well as his defects and handicaps. However, it is necessary to know more about him than his weaknesses and defects. Although this knowledge is essential from the standpoint of cure and correction, a knowledge of his assets is just as important. Very often the defects cannot be corrected. In such cases he may still be socially rehabilitated through the intelligent manipulation of his assets.

There are two aspects to child guidance, the preventive and the curative. As far as the child is concerned, the preventive aspect begins at the time of infancy with the instilling of habits regarding feeding, bathing, sleeping, and care of the bladder and bowels, and continues with procedures varied according to the advancing years, through the preschool and school years.

All behavior is the resultant of the interaction between the individual and his environment. Hence, disturbed behavior may be due to disturbances either in the individual (i.e., in the psychophysical make-up), in the environment, or in both. In other words, the etiologic factors in the causation of disturbed or abnormal behavior may be endogenous, exogenous or heterogeneous. This is the fundamental concept in the so-called psychobiologic approach to the study of behavior disorders of children. One such study at the Cincinnati Child Guidance Home reveals the following figures:

	per cent
Exogenous	23.3
Endogenous	48.9
Heterogeneous	27.8

At one extreme are those physical conditions which, as it were, the individual seizes upon for his own use, or even seems to construct to gain his own ends. There is a wide literature dealing with cases in which the patient consciously or unconsciously uses the apparent illness to gain some goal in adjustment. The physician might even better follow the view that every form of physical illness should also be interpreted in terms of what it means to the individual. One of the possible meanings is that the illness is a handy tool in the personality's search for certain attainments. Between these two extremes illness means many other things to individuals. At times it seems to parallel or symbolize the entire personality adjustment. An example of this is in certain speech difficulties.

In my own work with children it has been found possible to approach the ailments in many ways. One can consider those physical conditions that of themselves produce reactions that are distasteful to society. Here may be considered such toxemias or deficiencies as lead to malaise or restlessness, early fatigue, or shortened span of attention. Among the physical disorders which do not in this direct way influence the behavior pattern are two other types. There are those which directly act to curtail the activity of the individual as various deformities. The other group includes those which, without actual effect upon the individual, markedly affect his adjustment through making him feel different from others. Here are found the various oddities of appearance such as unusual size, birthmarks and strabismus. These children use every sort of compensatory activity in an effort to draw attention from what a trick of fate has done to them. In an effort to simplify this complex situation the following scheme serves as a basis for a practical approach. In the figures which follow the endogenous group has been broken down into 7 subgroups.

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ENDOGENOUS GROUP	GROUP PERCENTAGE	TOTAL PERCENTAGE
1. Disorders of the central nervous system	28.6	14.0
2. Endocrine disturbances	21.7	10.6
3. Deviations of mental status	14.4	7.1
4. Psychoneuroses	13.0	6.4
5. Somatic disorders	10.9	5.3
6. Psychopathic states	6.3	3.0
7. Psychoses	5.2	2.5

1. Disorders of the central nervous system constitute the largest group, and many of the other groups are later found to include this involvement. These include various types of trauma and inflammation. By means of electroencephalography many new, interesting phases involving these types have been revealed. The various types are self-explanatory but will be discussed further in detail.

2. The endocrine system is in some part derived from the nervous system or from the same matrix that gave rise to the nervous system and acts as an adjuvant to it, prolonging and intensifying its effects. Autonomic activity is closely related to feeling, but it is not yet clear how this system which controls metabolism links up with the central nervous system and especially with the higher cerebral centers which subserve thought and coördinated activity.

In the past few years our knowledge of the functions of the ductless glands has greatly increased and is much more accurate. This has been due largely to the successful efforts of physiologists to isolate the active principles of the thyroid, adrenal, pituitary, pancreatic, parathyroid and sex glands and to make possible more accurate information regarding their function.

It is known that each gland secretes a specific hormone which is essential to the welfare of the individual. Any change in this function results in definite changes in the general metabolism. There is also a close interrelationship between the glands that constitutes a reciprocally dependent system. There is no body system that is not directly or indirectly influenced by the glands. In brief, they are intimately bound up with all development, physical as well as mental.

The fact that the mental defect of the cretin is due to a thyroid deficiency has long been known. The fact, however, that disturbances in the functioning of the various glands of internal secretions may cause the individual to develop personality traits and characteristics which stamp him as different from the normal is not so well known. Unfortunately a great deal of "trash" has been written about the relation of the glands to the personality.

The physical anomalies produced as a result of pathologic disturbances are well known. What has been lost sight of, however, is the fact that coincident with the physically abnormal changes there may be corresponding mental changes, also abnormal. The mental changes are often subtle and may affect only the personality make-up of the individual. Some may be so marked as to show themselves in the form of such gross psychopathologic conditions as mental retardation or schizoid reactions. Hypothalamic lesions are often so manifested. The role that physical habitus plays in the development of certain physical diseases has been well established.

In addition to the establishment of definite physical, and hence mental, types, abnormal functioning of the glands of internal secretion may produce still another effect. This is more indirect and applies to the mental attitude which the individual assumes toward his own abnormality or shortcoming. This is of tremendous importance, since it is this attitude which, as a rule, determines his own entire attitude toward life and furnishes the motif for behavior. Unless this fact is recognized it becomes impossible to explain many behavior disorders of children and adolescents. It is possible accurately to determine the anatomic age by examination of the osseous centers of growth. This anatomic age merits consideration with the chronologic age and the psychologic age or I.Q.

Thus it is not difficult to understand why the adolescent boy who is suffering from eunuchoidism as a result of gonadal insufficiency should develop a marked feeling of inferiority which in turn leads him to shun his companions, to become morose and shut in, and to feel he has been cheated and that life is not worth living. Nor is it difficult to understand why the girl who matures sexually at 8 or 9 as a result of a combination of pituitary and ovarian hyperactivity develops personality traits and characteristics which may lead to grave conduct disorders.

Such individuals realize early in life that they are different from their companions, and, probably what is just as important from the mental standpoint, they also realize that their abnormalities are known to others. Such knowledge leads to severe mental reactions and makes the individual adopt an abnormal philosophy of life. The outlook on life is largely conditioned by the ability to share the common things that life is supposed to offer to all. The realization of being handicapped or of being conspicuous will obviously tend toward the development of undesirable personality traits that make normal social adjustment difficult.

3. It is important to be critical of the loose use of the term intelligence. There are different connotations, as abstract, concrete or social intelligence, or capacities for handling ideas, things or people. This information serves to enlighten one concerning mental potentialities and some modes of behavior. Intelligence is only a partial determinant of behavior, and the personality structure and scales cover only a small part of intelligence. Too often a child is stigmatized by results of a hasty intelligence test improperly interpreted. It is well known that the brilliant child offers characteristic difficulties.

4. The psychoneurotic attempts to compensate for inner feelings of insecurity and inferiority. This type will not be discussed in detail at this time, except as part of the other types. This is the so-called nervous child.

5. Somatic diseases include unrecognized errors of refraction or impairment in hearing that may lead to lack of attention in school or home. Also to be considered are cardiac or kidney conditions with a consequent malaise that frequently leads to an accusation of laziness. Early diabetes causes a voracious appetite, and hypoglycemic states lead to episodic misbehavior which is often bizarre.

6. The diagnosis of psychopathic state is frequently used as a "dumping ground" diagnosis for those conditions which do not appear to fit into any other diagnostic entity. The condition is usually diagnosed from a purely descriptive and less frequently from an etiologic approach. Fundamentally, the psychopath shows no real insight into his condition. There is a persistent tendency to project the source of his troubles to the environment. In addition, there is usually found a marked lack of normal or appropriate emotional response, a general leveling of affect, and such a degree of impairment of judgment that the individual is unable to adapt himself to a social group. The case record usually reveals a series of disasters involving such individuals

and brought about for no obvious purpose. Such a person is incompetent and incapable of carrying on the usual activities of life without constant supervision. This condition can usually be traced back to childhood, and transition is not clear. The effects of brain cell deterioration following upon conditions which produce oxygen starvation are not well known. Such anoxemias are not the necessary accompaniments of any specific disease. They occur in cases in which there is interference with the functioning of the organs which supply oxygen to the brain. The selective vulnerability of those portions of the cortex which are latest in developing is characteristic. Prolonged asphyxiation at birth may injure such areas where the cells are still in an embryonic stage. In infancy oxygen starvation frequently occurs with pneumonia and whooping-cough and affects these tissues in localities not yet mature enough to withstand such deprivations. In many psychopathic individuals this type of pathology is such that one must always consider the effect of more obvious disease, trauma, or nutritional deficiencies as they may affect the shapings of the personality.

7. The psychoses include chiefly the schizophrenic and psychopathic personality with psychosis. This type includes a much higher percentage than is usually realized. Horrible crimes are often committed in the incipient stages.

It is important that the physician establish adequate rapport with the child. However, it is rather obvious that direct conversation with the child upon personal topics is difficult. All too often he knows what he is expected to say. By utilization of the normal play interests and needs of the child such material as is needed for both diagnosis and therapy becomes available. Parents and others who have had the opportunity to observe children playing with dolls have heard them repeating the scoldings that they have received, as well as their own hopes and desires. A glimpse is thus obtained of the personal life of the child. In this way the parent-child relationship can be observed in the process of its earliest formation.

It is possible to utilize these natural tendencies to self-expression in experimental play situations.[2] It serves to supplement other methods, contributing material that deals with the personal, emotional and imaginative aspects of the child's behavior. During each play contact the child is treated as an equal whose opinions are respected and listened to attentively. The child's responses are accepted at their face value and no attempt is made to interpret the play material to the child. The specific complaints are made the focus of the therapeutic situation.

This procedure provides an opportunity for the child to express his feelings and thoughts through the medium of dolls as if they were responsible for all that is said and done. Thus the child, as an impartial spectator, can view objectively what is going on at the same time that he is actively participating in an intimate discussion of his own attitudes. It is not the child himself but the doll who is afraid of the dark. It is not he who is jealous or hates but the doll character. Therefore he can describe the motives and imaginations that may help the doll's behavior and consequently his own.

Toy furniture and dolls representing various characters such as parents, teachers or siblings are used during the play session, and various "sets" are arranged by the physician as on a miniature stage. The child is given an opportunity to play freely with the dolls. The emphasis in the situation is placed on the planned play situation which is repeated at such intervals as are indicated. Problems such as sicknesses, fear states, sibling jealousies, and the sex attitudes can be studied in an unbiased and critical manner by a series of play experiments.

ILLUSTRATIVE CASES

Case 1. H. T., a boy aged 17, was arrested by the Juvenile Court on charges of his father that he refused to look for a job and go to work. It was further charged that he was lazy, indifferent and impertinent, and that this attitude caused considerable friction in the home.

The father had already whipped the boy, turned him out of the house, and finally had him arrested. Physical examination revealed mitral stenosis with marked cardiac dilatation. He was pathetically grateful when he was told to rest and not exert himself. The boy was hospitalized but unfortunately had already developed a decompensation that resulted in death. The parents were genuinely grief-stricken.

Case 2. T.R. was referred because of temper tantrums and violent incorrigibility. Although he was only 5 years of age he had attacked other children in the kindergarten and was very destructive. Observation revealed he was very emotional when crossed. It was noticed that he was more irritable in the afternoon, at which time he ran a low-grade fever. The boy had always been sickly and it was not discovered that he had a tuberculous lesion. After a period of stay in a preventorium the physical as well as the mental symptoms cleared up.

Case 3. D. S., a girl aged 16, was referred because of difficulty both at home and in school. She was resentful and sullen and fought with other children on the slightest provocation. The home situation was poor, and the father had married 4 times. The mother had died when the girl was very young, and none of the stepmothers had shown any interest in her. The father was interested only in the ability of his children to contribute. Examination revealed juvenile diabetes mellitus. Treatment and residence in a foster home resulted in a marked improvement.

Case 4. A 14-year-old boy with an extreme astigmatism that had been recognized but could not be fully corrected was referred because of truancy. In the elementary school he had had special supervision and the aid of a visiting teacher. When he entered junior high school this was discontinued, and he found it impossible to compete with the others in his class. Restlessness and then truancy was the result.

Case 5. H. G., an 11-year-old boy, was referred because of day-dreaming and inattention in school that distracted the class and affected the morale by his apparent indifference to admonitions. He was a rather large boy and was seated in the rear of the class. Examination revealed a significant hearing defect that was not recognized.

Case 6. S.A., a 10-year-old boy, was admitted because he frequently soiled himself. This led to his rejection by his classmates and poor academic work. Habit-training was unsuccessful, and the parents were at a loss. Examination revealed a relaxed rectal sphincter, and this in turn was found to be due to a spina bifida occulta. He was permitted the free use of the toilet and made to understand his condition.

Case 7. H.S., an 11-year-old boy, was referred because of failure in school and delinquency such as stealing money from the parents. This was invariably used to purchase candy. His school failure was attributed by his teachers to mental and physical sluggishness. Examination revealed a typical mons-mammary-girdle type of obesity with genital infantilism. He had bought candy to satisfy an uncontrollable desire for sweets and also to bribe his male companions not to tease him because of his genital infantilism. Both the anterior and posterior pituitary were involved, and treatment consisted in oral use and injections of the gland.

Case 8. L.A., an 11-year-old female, had been found to have some obscene love letters in her possession. After investigation of several false leads it was found that the child had written the letters to herself. For the past year she had become slovenly, seclusive and inattentive. She was prone to periods of extreme irritability. She was a 7 months' premature baby and weighed 14 pounds at birth. Menarche was established at the age of 9 and occurred every 3 weeks. She received no instruction in personal hygiene, and her knowledge was gleaned from conversations of older girls and trashy literature which began to attract her. Eventually she began to masturbate to excess and then began to suffer from feelings of guilt. Her anatomic age was that of a girl 63 inches tall and weighing 151 pounds. She was treated for both anterior and posterior pituitary conditions, placed in a private school, and given a diet. After an initial loss in weight her height began to increase at the expense of her weight and she made an excellent adjustment.

SUMMARY

Physicians should bear in mind that the correlation between structure and function long noted by physiologists includes both mental and physiologic functioning. Disturbances in glandular function may lead to abnormal conduct reactions either directly or indirectly. The former type is represented in cretinism and the latter in those cases in which as a result of physical malformations the individual develops abnormal mental attitudes and personality traits which make normal social adjustment difficult.

The close relationship existing between endo-

(*Continued on page 130*)

INSIGHT INTO PSYCHOTIC MECHANISMS AND EMERGENCY PSYCHOTHERAPY*

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WAR psychiatry and war psychotherapy are of rather recent origin. Their use as we know it today was first initiated during the Russian-Japanese War and expanded during the first World War. In order not to pack this paper with a large burden of literature, I may mention at this point a review of the literature on War Psychiatry until 1940 done by Meyer Maskin under the auspices of the William Alanson White Foundation.[1]

The additional experience which had unfortunately to come with the Spanish Civil War and the present World War was the need for emergency psychiatry of the civilian victims of modern total warfare. In dealing with this new art and science we are faced with two problems of equally great significance: (1) What can we learn from our experience in peacetime psychiatry that may improve the speed and efficiency of emergency psychotherapy?, and (2) what contributions from our experience in emergency psychotherapy can be made to general psychiatry as a healing art and as a science of human relationships?

In view of the cultural values for which this country and her allies wish to fight, it may be an encouraging sign on a bleak horizon and may help to raise the morale of physicians and patients if we look at our emergency duties from both aspects, as highly practical and as scientific and cultural. Let me, therefore, offer some suggestions from both angles which have come to me in regard to the mutual influence of insight into psychotic mechanisms and emergency psychotherapy.

Among the papers which have been published so far, I was especially impressed by one written by the British psychiatrist, Dr. Felix Brown of Oxford, "Civilian Psychiatric Air Raid Casualties."[2] Like Gillespie,[3] whom most of you heard recently during his stay in this country, Brown mentions two surprising facts which were observed during the air raids on the British Isles: (1) the small number of psychiatric casualties, which in fact were so infrequent that many hospitals which had been prepared for psychiatric air-raid casualties were soon converted to general hospital use, and (2) the immediate cure of acute emotional disturbances such as shock indicated by tremor, dilated pupils, severe tachycardia, fear and anxiety states, and transient hysterical reactions such as limp, semi-stuporous states, conditions of acute fright, and conversion symptoms.

If patients suffering from these reactions could be seen by the psychiatrist immediately after the trauma, be it at the place where the accident occurred, the air-raid shelter or the casualty station, and if they were encouraged to give immediately the whole history of the trauma and their emotional reactions to it, complete cure of their acute emotional reactions could be accomplished. Also, endurance toward later air raids was improved.

They were, of course, approached tactfully, reassuringly and cautiously, but were pressed to fill every possible gap in the history of their accident and their emotional reactions to it, no matter how distressing it seemed to recall it. Only if the patients were too dazed to speak, history-taking was delayed.

Once the psychiatrist had succeeded in making the air-raid victim talk about everything pertaining to the accident, the patient was put to sleep. The choice and the amount of sedatives were determined by the severity of the victim's experience and the seriousness of his emotional reactions. Milder cases were put to sleep at the casualty station for something like 3 hours by small doses of chloralhydrate or potassium bromide and then sent home. More serious cases stayed for 1 day and night, others for something like a week at the hospital with sleep of 13 hours during the night and 2 or 3 hours twice a day by means of 6 grains of nembutal, $7\frac{1}{2}$ grains of sodium amytal, or evipan narcosis. Additionally morphine and hyoscin were given in very disturbed cases.

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* Read before the Section on Neurology and Psychiatry of the Society, February 5, 1942.

All acute psychiatric casualties which were treated this way recovered immediately and completely no matter how severe the actual accident had been. Psychoneuroses with more permanent symptoms developed only if and when it was impossible for the victims to be seen by the psychiatrist immediately after the accident, so that there was time to force the memory of the traumatic experience out of their awareness. It is this act of making the air-raid victims talk in detail and explicitly about the accident and its emotional repercussions immediately after it has happened which Brown considers the crucial point of treatment. He fully recognizes that the victim cannot overcome the pathogenic influence of the traumatic experience without being given the benefit of complete relaxation and extensive sleep after the discussion; but he is anxious to have the victims talk before he puts them to sleep, because he wants to hinder "repression" and to encourage immediate integration of the traumatic experience.

To repeat, in all psychiatric air-raid casualties in which the method of immediate thorough discussion of the accident and the victim's emotional reactions to it, with subsequent sedation, could be accomplished, complete cure was obtained. Chronic psychoneuroses were observed only when immediate history-taking was impossible. Psychoses were observed only in predisposed personalities.

In military psychotherapy similar experience has been gathered. Some military psychiatrists recommend immediate history-taking from the air-raided soldier as Brown does from the civilian air-raid victims. Others suggest psychocatharsis with or without hypnosis. Still others recommend sodium amytal ($7\frac{1}{2}$ grains) to be given very slowly intravenously in doses which help the patient to relax sufficiently to express himself without putting him to sleep. All these treatment suggestions have the common basic idea of getting the traumatic experience into the open as quickly as possible after it has taken place, thus hindering the patient from forcing it out of awareness and turning it into a repressed and, hence, pathogenic emotional experience.

I said that we were surprised when we heard Brown's and Gillespie's reports. And yet those of us who are trained in modern genetic and dynamic psychiatry should not have been surprised at all. We should have expected the gratifying results of a method of treatment which is altogether based on our modern knowledge of the genesis of peacetime neuroses and psychoses. Modern psychiatry teaches, as you know, that there are traumatic emotional experiences at the basis of every psychoneurosis or psychosis. There are, above all, frustrating childhood experiences, too hard for the child to face, much less to integrate, due either to the actual severity of the experience or its significance in phantasy or to the child's unfavorable environmental or constitutional background, which make him hypersensitive toward the vicissitudes of his early life. Therefore, the infantile mind tries to make these experiences ineffective by forcing them out of his awareness (by "repressing" them). However, that does not mean that they really disappear. No emotional experience which we undergo at any time of our life can actually vanish. Yet if we do not dare or are unable to face it and to integrate it, and it is, instead, pushed out of awareness, it remains, as it were, like an emotional foreign body at the bottom of our mental organism. So do the repressed unhappy childhood experiences. The result is that the child's reactions to these early thwarting experiences do not integrate with the maturing process of the rest of the self, so that the person, as he grows up, will not be able to take further thwarting experiences and frustrations as they may come to him in later life on the same level of maturity he has otherwise accomplished at the time. Instead, he will face them with the immature emotional equipment he possessed at the time he was first repressing early emotional injuries. Furthermore, he will add the pain and hurt experienced in the early times to the hardship of every later painful experience, because there was no opportunity to assimilate and digest the first thwarting experiences due to their early repression. Hence, any further disappointment or frustrating experience in later life is not only standing for itself, but also for the first early emotional traumata, and for all subsequent frustrations with which they are tied up by the mutual bond of the initial traumata. Consequently, the endurance of warp and frustration is considerably diminished for such a person. Sooner or later one of the disappointments he may have to undergo will represent the last link in a chain of unintegrated injuries which will at last lead up to emotional sickness.

What are psychiatrists doing to treat these conditions? We try to help the patient to revive the initial repressed traumatic experiences, to relive them with the psychiatrist, to discuss and rediscuss them with him, and we expect that it will contribute to the patient's final cure if he succeeds at last in facing the initial "repressed" traumatic experiences, in getting emotional and intellectual insight into their working, and eventually in integrating them, so that they are no longer interfering with his ability to meet the vicissitudes of later life.

If it is true that the repression of early traumatic experiences is paramount among the causes for neurotic and psychotic developments in peacetime, then we understand that keeping an air-raid victim from repressing his traumatic experience when it arises safeguards him against the development of a later emotional disturbance. And if it is true that repression of previous traumatic experiences is responsible for a person's lessened endurance toward similar ones which he may have to undergo subsequently, we understand that safeguarding against repression, and helping in the conscious integration of one traumatic air-raid experience, make for an increased endurance of later ones.

Now as to the other "surprising" observation of our British colleagues, the comparatively small number of psychiatric air-raid casualties, let us see whether our experience in peacetime psychiatry offers also ways of understanding and explaining this observation.

The theory of the genesis of mental disturbances we have given so far holds true for both neuroses and psychoses. In the genesis of various types of psychoses, we find an additional important fact which may throw some light on the experience of the British psychiatrists in emergency psychiatry. It seems that they do not fall sick due only to the unbearable repetition of very early infantile warping experience, but due also to the tremendous amount of resentment, rage, anger and hostility they develop in response to these and the subsequent thwarting experiences life has inflicted on them. This hostility calls in turn for a tremendous insecurity in part for fear of hostility from the surroundings. Hence fear of their own hostility and fear of hostility from other people play a great role in the etiology of these psychoses. Proof of this hypothesis came to us while observing patients whose recovery was largely encouraged if they were given the opportunity to get rid of their excess hostility by expressing it fully to the psychotherapist, and to be freed from their fear of hostility in other people by the experience of never meeting any of it in their contacts with their psychotherapist.

What bearing has this experience on our understanding of the unexpectedly small number of psychiatric air-raid casualties? To feel hostility which has to be repressed and to be afraid of hostility in other people make for serious mental disturbances in peacetime. The air-raid victim has not only no reason to keep his hostility from his awareness, but hostility against a foe who inflicts the air-raid accidents on him is expected and required. Also, since there cannot be any repressed fear of outside hostility, because the victim's hostility is the overt response to the hostile act inflicted on him by the enemy, two important reasons for the rise of mental disturbances in peacetime, fear of the patient's own repressed hostility and of hostility in his fellowmen, are out of the question in psychiatric air-raid casualties.

In addition, there is one other factor: peacetime neuroses or psychoses arise from personal emotional traumata experienced by the individual patient, and his emotional response to it is a highly personalized one. Most peacetime neurotics and psychotics feel distinctly that nobody else will feel and react the way they do, and they are very reluctant to compare notes with their neighbor, as it were. The contrary holds true for air-raid victims: the air raid itself, as well as the common reaction of hostility and resentment against the enemy which it arouses, is a group experience which one victim shares with the next. This fact constitutes another safeguard against serious mental disturbances after air raids.

This insight has been used by the British psychiatrists in their therapeutic efforts with their psychiatric air-raid casualties. As soon as the victims were cured from the acute traumatic shock they were encouraged to join their fellow victims in the emergency group work necessary during or after an air raid.

This leads to one further explanation of the small number of psychiatric casualties as offered by the Canadian psychiatrist Scott in his paper, "The Soldier's Defense and the Public Attitude."[4] Scott states that the number of psychiatric casualties among the armed forces has also been smaller than expected. He thinks that it is partly due to the forced inactivity of the trench warfare during the first World War; i.e., he considers the increased military activity to be a safeguard against psychiatric casualties among soldiers, just as the psychiatrists for civilian air-raid victims believe also when they use group activity for therapeutic and prophylactic purposes.

Scott mentions one more reason for the decrease in the number of psychiatric casualties among soldiers which we also consider valid for civilians, namely, the change in the cultural attitude toward fear and anxiety now as compared with 25 or 30 years ago. Formerly a soldier who felt fear and anxiety had to do all he could to hide it from his fellow soldiers, if not from himself. Otherwise, he would be stigmatized as a coward in his own mind and in the evaluation of his comrades and superiors. Nowadays any soldier is supposed to know, and is allowed to admit to himself and to others, that he is frightened when his life and health are threatened. This does not make him a coward in his own eyes nor in those of his comrades or superiors. In this war the soldier is supposed to fight, not because he does not know any fear, but in spite of his fear.

The same holds true for the civilian air-raid victim. He too may be frightened, yet due to our present cultural attitude fear and anxiety need not be suppressed. Therefore, they do not work as pathogenic agents. Many times the contrary may be true. Fear and anxiety are something which the individual air-raid victim has in common with the rest of the air-raided community. As a frankly admitted emotional group experience, they may safeguard against mental sickness as does the open expression of group hostility.

So far we have discussed the contribution of psychiatric disturbances in peacetime to the understanding of emergency psychotherapy. Now to our second question: what contributions to peacetime psychiatry are to be gained by Brown's and Gillespie's experience with psychiatric air-raid casualties?

The favorable psychotherapeutic results which the authors obtained by safeguarding their patients against repression encourage further emphasis on those modern pedagogic and medical teachings which advocate frank unrepressed emotional expression in healthy children as a safeguard against the rise of neuroses and psychoses in later life.

Sleep treatment as used by Brown and Gillespie with psychiatric air-raid victims has been given in peacetime psychotherapy to psychoses only. The good results with emergency cases lead to the question whether sleep treatment of peacetime neuroses may be indicated after an actual severe traumatic emotional experience as well as in cases of seriously upsetting revival and reliving of highly traumatic material from the past in the course of psychotherapy. Further investigation of this question as a possible means of shortening peacetime psychotherapy of neuroses appears promising.

One very important factor in the psychiatric treatment of air-raid casualties has not been sufficiently stressed in the British literature. That is the question of the therapeutic significance of the personal relationship between the psychiatrist and the air-raid victim.

It has been said that the results in civilian emergency psychotherapy are by and large better than in military psychotherapy. The fact that the soldier, unlike the civilian, has no immediate gain from his recovery has been made responsible for this difference. We believe that there is another more important reason. As mentioned before, the crucial part of modern peacetime psychotherapy is the discussion of, and the patient's insight into, his interpersonal relationship to the psychotherapist with all its ramifications. This relationship is built up on the background of our knowledge that the mentally sick are different from so-called healthy people (including the psychiatrist) only by degree and not in kind. On the background of this attitude, a natural, spontaneous, and matter-of-fact relationship between patient and doctor should be developed which makes it possible for the patient to overcome his reluctance and inhibitions toward entering into a therapeutic discussion of his problems and conflicts and toward using the psychiatrist as a catalytic agent for his previous traumatic interpersonal experiences.

While the doctor's attitude should be completely free from sentimentality or over-friendliness, it is self-evident that the condition sine qua non of any such psychotherapeutic procedure is that the doctor meet the patient on an equal level and not in the spirit of any preëstablished authority other than that of his medical and psychiatric training and experience. The military psychiatrist will have a hard time making his patients trust his intention to meet them as equals. Being a commissioned officer he is in danger of remaining a superior in the soldier's mind, much as he may consciously try to ignore the military situation while in psychotherapeutic contact with his patient.* That is what Colonel Porter seems to have in mind when he mentions in his paper, "The Military Psychiatrist at Work," "he must possess tact to a superlative degree."[5] See also Gillespie's "Psychological Effects of War on Citizen and Soldier."[3]

I had the opportunity to follow up the work of a young psychotherapist, a medical officer in the army, who tried to do consistent psychotherapy with a private before his dismissal. Even though the soldier knew he would be dismissed from the army, treatment was not successful because the patient was not able to take any therapeutic suggestions in their own right. No matter how the psychiatrist put his suggestions, the soldier took them as orders given to him by his superior; beneficial or not, he had to follow them. Any reasonably free discussion of the patient's relationship with his doctor and superior seemed impossible.

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* At the present time the Navy tries to dispose of these difficulties somewhat better than the Army by having the physicians wear doctors' uniforms while working, by encouraging the sailors to address the physicians as "doctor" instead of using their military title, and by having the physicians address each other as "doctor" rather than according to their military rank.

On the other hand, a report came to me from a psychiatrist who worked at one of the large recruiting centers of the country and who succeeded in convincing the recruits that he actually wanted to meet them on an equal level. Realizing that the future soldier, being examined by the psychiatrist, would be as suspicious and sensitive as any psychiatric patient under treatment, the doctor tried to convey to his recruits the idea of a wholesome mutual interpersonal relationship on the basis of equality, by certain intangibles in attitude and gestures rather than by spoken words. He knew from his psychiatric experience with the mentally sick how frequently people feel that words are not only used to convey the real meaning of things but also to cover it up. The soldiers believed him and he was said to have seen and evaluated two and a half times as many recruits in a given time as his less experienced and less gifted colleagues. What is true for the approach to recruits in psychiatric examinations will be just as true and perhaps more so for the therapeutic approach to the soldier. This means that successful psychotherapy can be done only on the basis of a successful patient-physician interrelationship. The military situation between medical officer and noncommissioned soldier-patient is an obstacle to its establishment. This interference does not exist for the psychiatrist who treats civilian air-raid victims. I believe this to be the main reason for the better results in their treatment versus those in military psychiatry.

Brown and Gillespie do not explicitly elaborate on the question of their personal interrelationship with their successfully treated air-raid victims. None the less, one gains the firm conviction from the atmosphere of Brown's paper that their skill in establishing the right kind of human attitude toward and the right kind of interrelationship with their patients has been one of the decisive reasons for their success.

In addition to its therapeutic value there is another reason why non-authoritarian psychiatric guidance on the basis of a valid doctor-patient relationship is of paramount significance in our days. To some patients the individual experience of that type of relationship may serve as illustration and symbol of the general idea for which combatant and noncombatant victims are supposed and willing to suffer and to fight, real human interrelationships in the spirit of freedom and democracy versus totalitarian submission and versus authoritarian leadership.

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The health of doctors living in hospitals is an important matter. It deserves careful consideration. Each medical student on graduation from his medical school should receive a card giving a complete report of his tuberculin test and roentgen examinations. Each hospital should make a rule to continue with this record by requiring chest films of its internes at six-month intervals. Large hospitals dealing with vast numbers of patients should go even further. They should require their internes and residents to have chest films at three-month intervals. If a rule of this sort were made general, tuberculosis in the resident staff would be recognized more quickly than it is at present, and unnecessary loss of time spent in treatment would be saved. Reginald Fitz, M.D.: Journal of the American Medical Association, September 26, 1942.

Editorials

AN EDITOR'S LAMENT

Like everyone else in wartime, the editor of a medical journal has his troubles. If his editorial duties are an avocation, chances are that his practice has increased to a point where he can find little time for anything else. But as editor he hasn't much choice so long as he continues to be responsible for a publication. He can, of course, relinquish his position but others are in no better position to do the job. In fact, they are either uninterested or do not have talent for editing. His colleagues, he also finds, are extremely busy. More often than not his requests for scientific articles or editorials are met with negative response. He therefore has only two alternatives: to reduce the size of his journal, eliminating as much material as he can, or prepare enough text matter to fill his journal.

Not that there is a dearth of material, for there is plenty to write about. New developments in medical science are stimulated by the war and then there is much to comment on of a general nature. But preparing material for publication is laborious work. If the editor is fortunate he has someone capable of relieving him of some of his burdens. In the final analysis, however, he alone is responsible for what appears in the publication.

The editor has other worries, too. He cannot meet deadlines as he used to. Many printing plants have been thrown off schedule by Government priorities. Then there is the threatened shortage of paper and the increased costs of publication. And while most medical journals are not maintained by their advertising revenue, they are dependent upon this source of income for a considerable part of the publication costs. With conditions as they are today, it is difficult to keep advertising at the level which conditions would seem to justify, so the editor must endeavor to trim his journal to meet increasing costs.

Despite difficulties incident to its publication, no changes have been made in the MEDICAL ANNALS. The Society's Executive Board has requested the Editorial Board to maintain the present standard as long as possible. However, the ANNALS cannot remain unaffected by wartime conditions so the Editorial Board requests the indulgence of its readers. If the ANNALS arrives late or does not measure up in some respects to its previous standards, allowances must be made for the handicaps under which those responsible for it are working.

PEPTIC ULCER

A completely adequate explanation of the cause of peptic ulcer has not yet been given. However, recent studies in the psychosomatic field have been the source of some very stimulating suggestions.

Morrison and Feldman[1] in a statistical study of 208 cases of duodenal ulcer concluded that patients with this disease have a distinctive constitutional pattern which is localized not only in the duodenum and alimentary tract but in the whole behavior. The pattern is characterized by hypersensitivity, hyperirritability and hyperactivity. The patient with this kind of constitutional pattern tends to develop peptic ulcer as a result of psychosomatic influences which arise from the stress of his living. Quite often the effects of these influences are apparent early in adult life or even during adolescence. This perhaps substantiates Draper's belief[2] that the psychologic panel of the usual ulcer patient fails to mature, that peptic ulcer is an expression of the organism's unwillingness to depart from, or effort to regress to the protectorate of the mother principle.

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[1] Morrison, S., and Feldman, M.: J. A. M. A., 1942, **120**, 738.

Even if we accept the idea that peptic ulcer therefore is an expression in a certain constitutional type of contact with a certain set of environmental influences, the explanation of the physiologic mechanism of production of the organic lesion still must be explained more exactly. Some elucidation of this part of the problem has been derived from the observations of Wolf and Wolff[3] in a patient with a large gastric fistula whose mucosa was readily to be seen. They were able to study the rate of elaboration of acid and the variations in motility and congestion in the stomach under "basal" conditions and in response to various physical and emotional influences. They found that intense sustained anxiety, hostility and resentment were accompanied by severe and prolonged engorgement, hypermotility and hypersecretion in the stomach. In this state mucosal erosions and hemorrhages were readily induced by the slightest traumas or even as a result of vigorous contractions of the stomach wall. Contact of the acid gastric secretion with a small erosion of this kind provoked an even greater secretion of acid and engorgement of the mucosa. Prolonged exposure of such a lesion to acid gastric juice led to the formation of a chronic ulcer.

Apparently therefore, from the data at hand, the pathogenesis of peptic ulcer can be diagrammed somewhat as follows:

Hypersensitive, hyperirritable, hyperactive constitutional type +
Environmental influences engendering sustained anxiety, or etc.→
Severe and prolonged engorgement, hypermotility and hypersecretion in the stomach→
Mucosal erosions→
Aggravation of engorgement and hypersecretion→
Chronic ulcer.

Obviously, from the work of Wolf and Wolff,[3] once this stage of chronic ulceration is reached, the lesion may persist and indeed enlarge mainly as the result of its own influence on gastric secretion and motility and perhaps without relationship to the psychosomatic influences which begin the chain of events.

The discussion of these ideas to this point fails to account for two important facts in the story of the genesis of peptic ulcer, namely, that the disease is about nine times as common in men as in women and that it is found in the duodenum about nine times more frequently than in the stomach. The first of these facts brings to mind the possibility of endocrine influences, some of which have already been partially investigated.[4] The second fact possibly is to be accounted for by the lack of a protective layer of mucus in the duodenum. Wolf and Wolff[3] observed that the mucus layer of the stomach is an effective insulation against acid gastric secretion.

It is perhaps not easy to see that these interesting diversions into the psychosomatic field have done much to improve our approach to the therapy of peptic ulcer. The larger responsibility for treating the disease remains with the internist. Certainly little has been brought to light which will increase the scope of surgical treatment, except to emphasize a point of which the surgeon already had taken cognizance, namely, that the best kind of surgery in peptic ulcer is that which removes enough of the stomach to prevent future hypersecretion. On the other hand, the scope of the medical management has been tremendously increased. There is, of course, no lessening of the need to improve the patient by counteracting gastric hypersecretion and hypermotility with such time-tried measures as proper diet, colloidal aluminum hydroxide, antispasmodics and barbiturates. In addition, however, there has developed a need for skill in recognizing the constitutional type in which peptic ulcer tends to arise and in preventing the disease by forestalling those environmental influences which are a part of the pathogenesis. There is the further need for adoption by most of the physicians who treat peptic ulcer patients of the humble attitude that this is a disease which usually can only be controlled, seldom cured in the long-term sense. In this connection, a rather comprehensive program of education is necessary for the patient. Every effort must be made to modify his ambitions, his expectations, and his mode of reaction to irritating environmental circumstances in such a way that emotional tension can be kept at a minimum. In this way his threshold to emotional stimuli may be lowered and his personality make-up modified, if not fundamentally changed.

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[2] Draper, G.: Ann. Int. Med., 1942, **16**, 633.

[3] Wolf, S., and Wolff, H. G.: J. A. M. A., 1942, **120**, 670.

[4] Sandweiss, D. J., Saltzstein, H. C., and Farbman, A. A.: Am. J. Digest. Dis., 1939, **6**, 6; Winkelstein, A.: J. Mt. Sinai Hosp., 1940, **7**, 29.

H. H. H.

IT WILL HAPPEN HERE UNLESS—

Physicians who are prominent in their medical societies will at some time or other become the object of criticism. More frequently than not it is very mild and nothing to raise the blood pressure. On the other hand, they may be severely —often unfairly—censured by their fellow practitioners. This experience is not uncommon to physicians in important offices. Most of them weather it with no ill effects, others are not so philosophical.

Criticism usually centers about the motives of the individual rather than his ability. His personality, too, may become irritating with or without explainable cause. The charge of politics is most often heard, and those who complain "thank God" that they have nothing to do with medical politics.

Now, of course, not all physicians are severely critical of their colleagues who serve in an official capacity. Fortunately, there are those who understand the difficulties of holding office and the sacrifices involved. They may not be in the majority but they are a substantial group and the bulwark of any medical society. What is often overlooked by physicians who are not officers of a medical society is their own responsibilities. They are prone to leave all decisions to medical leaders when, as a matter of fact, responsibility for the future of medicine rests to a considerable degree on the shoulders of the rank and file of the profession.

How does the average member of a medical society meet his obligations? To begin with, he is too frequently indifferent to the problems with which his organization is endeavoring to cope. In fact, he knows so little about them that he cannot discuss them intelligently. He excuses himself on the basis that he is too busy with his own problems. It apparently does not occur to him that his personal welfare is involved in the major issues before medicine.

He may belong to the "what-do-I-get-for-my-dues" group, which might be described as the thoughtless segment of medical organizations. He never stops to think that if he is not actively interested, he receives nothing in return. Having paid his dues, he lets it go at that, except for occasional attendance at meetings. And this is too bad because medical societies have so much to offer the doctor if he will only exert himself to a moderate degree.

What then are the obligations of the average member? First of all, he cannot know anything about his organization unless he attends meetings fairly regularly. If he belongs only because of necessity, he is officially a member but not one in spirit. So the first requisite is that he be present not only at scientific meetings but in these times at sessions where the general affairs of medicine are discussed. There is no substitute for his active participation. Otherwise he cannot offer constructive criticism which will improve his organization and make it more worthwhile to himself and to other physicians.

Leadership is impotent without support. It may also become incompetent. Elimination of unqualified leaders depends upon an informed membership which is willing to face the facts and which will act when necessary. There are undoubtedly physicians in high places of responsibility who do not belong there. If they have nothing to contribute they should be removed from office. This is no time for second-rate leadership. The best is none too good.

Physicians on the home front also have a great responsibility to those in military service. Apathy now toward developments in medicine is not keeping the faith with the men who are with the armed forces.

Summing up, all physicians who have a genuine interest in their profession will meet their obligations to their medical societies in these days by taking an active interest, and will not be among those who criticize without a knowledge of the facts. Unless they do, dark days may be ahead for the medical profession.

PERTINENT PARAGRAPHS

February Meetings

Attendance at scientific meetings in February was much better than in previous months. As usual, there were few absentees at most board and committee meetings. This has been a source of satisfaction to the Society's officers.

The following meetings were held:

February 3	Procurement and Assignment Committee
February 4	Section on Neurology and Psychiatry
February 8	Committee on Postgraduate Education
February 10	Scientific Meeting of Society
February 17	Scientific Meeting of Society
February 18	Committee on Medical Service
February 19	Procurement and Assignment Committee
February 22	Committee on Public Policy
	Executive Board
February 23	Board of Censors
	Subcommittee on Tuberculosis
February 24	Scientific Meeting of Society
February 25	Section on Pediatrics
February 27	Section on Pathology and Laboratory Medicine

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Annual Registration of Physicians

From inquiries which have been received at the Society's Executive Office, it is apparent there are still physicians in the District who are not familiar with the provisions of the law requiring the annual registration of all persons licensed to practice the healing art in the District of Columbia, which was enacted by Congress on September 26, 1942.

Under the provisions of this law, every person holding a license to practice the healing art in the District, issued by the Commission on Licensure, is required to register with the Secretary-Treasurer of the Commission during the month of December each year, upon blanks furnished by the Secretary-Treasurer. The registration fee is $2.00. In the event of failure to register on or before December 31, a penalty of $5.00 is imposed, and should the licentiate fail to register and continue to practice his profession in the District of Columbia, he shall at the end of ten days from that date be considered as practicing without a license and penalized as otherwise provided in the Healing Arts Practice Act.

On or before the first day of April each year the Commission will mail to each licentiate who registered a printed list of all who registered in accordance with the law.

Physicians in the armed forces and away from

Washington are not being penalized for failure to register or for registering late.

Applications for 1943 registrations were sent licentiates on November 6, 1942 and a "follow-up" reminder was mailed December 21, 1942.

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Reminders to Patients

Patients are still prone to expect medical care as usual. Wherever physicians gather this is the topic of conversation, and it is generally agreed that if patients were fully aware of the demands being made upon the medical profession in defense areas such as Washington, they would coöperate better than they are now doing.

Recently at a meeting of the Committee on Medical Service for the District of Columbia, several ways of impressing this situation upon the public were proposed. Among these were placards for physicians' offices setting forth the manner in which patients can contribute to the efficiency of their doctors. Editorial comment on the shortage of doctors and conservation of their time, which appeared recently in the *Boston Herald*, states the doctor's case most effectively and the points made might well be used for the text of the placard proposed by the Committee.

> "We need to cherish them, these few remaining doctors of ours. They have got to last the war out and some time beyond, and we are going to have fewer rather than more. Already between a fifth and a sixth have gone to war, more are leaving every day, and there is no new increment from medical schools and interneships for replacements.
>
> "A general practitioner who has seen 27 patients in his office, visited 25 others in scattered homes, climbing some 75 flights of stairs in the process, and then crawled into bed shortly after 11 to snatch a bit of sleep before the emergency and pseudo-emergency calls start around 1 and 2 a.m., is not going to last the war out unless he is of a peculiarly durable physique. We need him too urgently to waste him, and there are ways to conserve his time, his energy, his temper, his tires and his gasoline. Here they are:
>
> 1. Call him to your home only when there is need for urgent treatment of a patient who cannot make an office call. An office treatment helps both him and you, for treatment is easier and more efficient.
> 2. If you must call him to your home, try to telephone shortly before 9 in the morning, so that he can plan his day. A Newton doctor who makes four separate trips to Waban merely because the calls came in that way is not being utilized very effectively. Gasoline, tires and medical skill are all being wasted.
> 3. Be ready with all the information a lay person can give about the patient when you call the doctor. Such information is a better clue to the urgency of the illness than the judgment of an untrained observer.
>
> "These are not difficult precepts, and a doctor whose patients observe them is better able to carry on through this critical period."

★

Emblems of Medicine

All physicians are familiar with the emblems of medicine—the magic wand or Caduceus, and the knotted staff and serpent. However, a poll would undoubtedly disclose that few know how they came into being. Dr. James A. Durand, of Baton Rouge, Louisiana, in an article appearing in the February 1943 issue of the *New Orleans Medical and Surgical Journal*, reminds his colleagues that the emblems "originated in those mythologic days of many gods." He then relates the following about their origin:

> "The Caduceus which is a wand or slender staff around which are loosely coiled two snakes has at its head two outspread wings. The definition of Caduceus means 'herald's wand.' The Caduceus was given by the god physician Apollo to Mercury upon the appointment of Mercury as an ambassador to mediate between the gods and man. It has become the magic wand of Mercury, the heavenly messenger of the gods. Mercury is also known to some as the God of Commerce. The Caduceus is a wand from an olive branch signifying peace and the outstretched wings at its head indicate speed and fleetness for the messenger Mercury. The two snakes intertwined about it indicate wisdom for the ambassador. The Roman army used it as a flag of truce, a symbol of neutrality or peaceful transactions between opposing armies on the battle front. There is no indication that the Caduceus was ever thought in those days to be the emblem of the healing art; however, the fact that it was

given to him by Apollo, the god physician, has given rise in some quarters that the Caduceus has a medical significance. It was not until the reign of King Henry VIII that Sir William Butts (——1545), personal physician to the king, adopted the Caduceus as his emblem for the medical profession. This is the first record of a physician using the Caduceus for this purpose. A few years later Dr. John Caius presented to Granville and Caius College of Cambridge, England, a silver Caduceus as an emblem of medicine.

* * *

"There lived in the early days of Greece a great physician by the name of Aesculapius, son of the physician god Apollo, who spent his life tirelessly in the service of the sick. His skill in the art of healing has placed him forever before us as the Father of Medicine.

"The staff of Aesculapius, a stout knotted staff with a single snake closely entwined around it, is medicine's oldest emblem. The staff was stout so that the lame could lean upon it; it was knotted to indicate the knotty problems of illness and it had wound about it a snake, symbol of healing, renewal of youth and prolongation of life.

"The association of the serpent with medicine roots deep in antiquity of the race. The ancient sign of wisdom and healing was the snake, which represented immortality or renovation of life and vigor, typified by the periodic shedding of its skin.

"Several legends have grown up in explanation of how the snake became an attribute of Aesculapius. One states that a snake came to him bearing in his mouth a magic herb by means of which he was able to perform all sorts of medical miracles. Another one has it that Aesculapius at the bedside of his patient, Glaucus, had a snake come to him and twine itself about his staff, imbuing him with wisdom and enabling him to effect a cure. It can be readily understood why it is that all the pictures and statues of Aesculapius show him holding a snake or grasping a stout knotted staff around which is a tightly clinging snake.

"With this historic mythologic background, physicians naturally feel that they have a unique and incontrovertible right to the use of the staff of Aesculapius as a very significant emblem of the profession of medicine.

* * *

"Two snakes closely entwined about a staff, with or without wings attached, is properly a Caduceus or staff of Mercury. One snake about a knotted staff represents the staff of Aesculapius.

"The use of either emblem seems to be highly appropriate to medicine, although the staff of Aesculapius seems to have the most ancient and significant background while for balance and artistic effect, the Caduceus may well be preferred."

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Shortages Affect Doctors

In response to a letter sent to the members of the Society by the Secretary on January 27, some 35 physicians have reported their difficulties in purchasing certain equipment, replacements for scientific apparatus, medical supplies and drugs. It is apparent from their statements that there are acute shortages in some items. Among these are batteries of all sorts, particularly those of the pencil variety, bulbs for flashlights, cystoscopes, electrocardiographic apparatus, and other scientific equipment, and some drugs. The list is too extensive for publication here. It still has to be determined if there are actual shortages in all items listed or whether it happened that they were not available at the time the doctor tried to make the purchase.

The Secretary of the Society communicated with the War Production Board in regard to all of these items. He received the following reply:

"With reference to medical supplies other than drugs, your list shows more complaints concerning batteries than on any other item. We have been aware of the battery situation where shortages have been due to urgent demands of the armed forces. Steps are being taken to assure that in the future a sufficient supply of batteries will be reserved for medical use. This covers batteries for both flashlights for physicians' use and batteries for diagnostic instruments and equipment. This situation will be definitely corrected within a very short time.

"We have also been aware of the shortages of small bulbs for diagnostic instruments and believe that this situation will likewise be corrected very promptly. Both bulbs and batteries will be made available through physicians' supply houses.

"With respect to drugs:

1. *Mapharsen*—We expect a shortage in this drug to be temporary. There are other arsenicals which may be used as substitutes.

2. *Menthol*—The raw material for manufacture of the natural menthol was previously obtained from Java

which source is now eliminated. Manufacture of synthetic menthol is limited by the availability of critical materials. We should appreciate it very much if you could obtain from physicians who reported shortages of menthol a statement as to how really essential they consider this drug.

3. *Creosote, pilocarpine, homatropine*—We have previously had no evidence of shortages of these drugs. An ample domestic crop of belladonna is available and there is no apparent reason for shortage of belladonna derivatives such as atropine and homatropine.

4. *Quinidine*—We have previously had no reports of shortages of this drug and it should be in ample supply. Attention should be drawn to the fact that its use is restricted to cardiac and anti-malarial use.

5. *Alcohol*—Sufficient ethyl alcohol is being provided for medicinal use. Isopropyl alcohol is available for rubbing and for antiseptic uses. There is no apparent reason for shortage, and we would appreciate it if you would let us know if there are further complaints on this score.

6. *Sulfonamides*—Whatever shortage may have been experienced is of a temporary nature and one which will ease rapidly.

7. *Compound tincture of benzoin*—Any shortage is probably due to the curtailed supplies of benzoin which is an imported drug. It will probably continue to be short depending on shipment possibilities.

"With respect to shortages of the mentioned equipment items, there will, I think, be a continuing shortage of microscopes. This is due to urgent demand on the productive facilities capable of making this equipment. We are hopeful that some arrangement can be worked out whereby urgent requirements for microscopes can be satisfied through purchase of the equipment owned by physicians who have joined the military forces. We were not aware that ophthalmoscopes were in short supply and will look into this matter."

The Secretary will welcome further letters from physicians in regard to items of which there are shortages.

* * *

Draft Examinations Criticized

Doctors have objected, and so have registrants, to the so-called screening examinations prescribed by the Selective Service System. Some examining physicians for local boards say their services are really not needed for the type of examinations being made. Registrants feel that they are getting a superficial examination and are prone to blame physicians for the inadequacy of the procedure.

Recently a correspondent in a local newspaper complained that he was classified 1-A after a most cursory examination and concluded: "I am informed that the doctors who conduct this farce get paid for their services." This brought a prompt reply from the chief examiner of the hospital in which the registrant had been examined. After refuting the statement that examining physicians receive compensation he continues:

> "In this screening examination certain abnormal findings are looked for, and if they are not found and no other marked disabilities are found, they [the registrants] are put in 1-A. However, any deformities or pathological conditions are noted. The men are then sent for their eye examination. . . . On completing this eye examination the men bring their papers to me. I listen to any complaints and answer them to the best of my ability.
>
> "This, in my opinion, is as complete a screening examination as can be made in the allotted time and in view of the large number of men we have to examine."

Another contributor, a doctor's secretary, also came to the defense of the examining physicians. She admits that there is good cause for complaint because of the manner in which the examinations are conducted but thinks the registrant is unfair in accusing the doctors for they are only following the instructions issued by Selective Service. She says:

> "Every one of those doctors, as is the case with all of the volunteer workers on draft nights, works entirely gratis. Take into consideration what this means to a busy doctor who in all probability has spent 12 hours in the practice of medicine. None of them grumble at the extra hours but every one of them would much rather give a thorough examination than the type they are asked to do by Selective Service."

* * *

Straws in the Wind

Some excellent editorials have appeared recently in the *Nebraska State Medical Journal.* They have the color that is so often lacking in editorial writing and "hit the mark." They are also timely, reflecting accurately the thoughts of the average medical man as he goes about his daily work.

In the February 1943 issue, under the title, "Things Will Never Be the Same Again," the *Journal* offers commonsense advice to pessimists in the medical profession.

> " 'We'll never see the old days again.' 'The practice of medicine will be altogether different after this war.' 'Nobody knows what it will be like after the war.' 'When the boys come back they won't be satisfied with the old methods of practice'. . . . These and other expressions and predictions may be heard daily whenever two or more physicians get together. . . ."
>
> "Of course we will never see the old days again. Time has always shown a tendency to go and not return, despite the enticing real and imaginary events painted by succeeding generations. . . ."
>
> "The practice of medicine will be different after the war, to be sure. The practice of medicine is different today from what it was a mere decade ago, though no one but a Robinson Crusoe can deny that our patients receive better care than they did in 1933. What it will be like after the war, obviously, no one can predict. But if we recall the contributions in medicine and surgery of the last war, we may look forward to even greater gains as a result of the vast clinical and experimental activities of the Army and Navy medical corps.
>
> "As to the disposition of the boys on return from the war, and it is the fond hope of every one that this may be real soon, it is difficult to conceive of the military uniform as contributing to a permanent change in human psychology. Many of them have given up good practices, and some will have made physical sacrifices in the service of their country before we are through. Yet when they return there is little reason to believe that they will do other than take their places in their respective communities and enjoy the respect and support of the people under their care. Their monetary losses during the years of service will be more than compensated by a richness in [worldly] experiences, and new friendships acquired while serving their country."

That the *Journal* is optimistic about the future is shown in the conclusion. It believes that "somehow we will find ourselves on a clear highway again before very long, and we too, very likely in the next generation, will be spinning yarns about the good old days."

The Beveridge Report

Very few physicians will read the Beveridge Report in its entirety for it is dry stuff. However, it is on the "must" list for officers of medical societies and editors of medical journals. They at least should be familiar with the portions which relate to medicine.

A few editors have already expressed themselves rather forcibly on the Report. There perhaps would not be so much heat in their comments if an American plan of a similar nature were not being seriously considered in Washington.

In an editorial, "Planning for Postwar Medical Care," which appeared in the January 9 issue of the *Journal of the American Medical Association*, reference is made to the Beveridge Report. The *Journal* comments as follows:

> "Sir William Beveridge's recommendations are essentially an expansion of Britain's present system of social insurance involving a state paid medical service for all regardless of individual financial status."

The *Journal* warns that the Beveridge plan or any other program developed abroad will not meet the needs of this country. It continues:

> "Most important is a realization that conditions in the United States are different from those in any other nation in the world. It would be the height of folly for us to approach this problem with the view that technics established as suitable in other nations would be equally suitable for us. The American democracy differs, even in its essentials, from the other great democracies. Any technic developed for medical service in this country should be adaptable to the maintenance of the American democracy. The nature and quality of medical service in the United States have always differed from those of other nations. The scale of living of the American people has been of a quality far superior to that generally available elsewhere in the world. Obviously any new technics that are developed for wider distribution of medical service should not contemplate a considerable depreciation of quality in order to attain wider distribution."

Views expressed by two county medical publications are of particular interest, for they reflect the attitude of those who are close to the "firing line" of medical practice. The *Bulletin of the*

Hennepin County (Minn.) Medical Society for December 1942 has this to say:

> "Recently a radio commentator emphasized that there were those in Washington who privately advocated abolition of the states as administrative units and the placing of all authority in the Federal Government. With rationing as a current example of centralized control, one suspects that should such advocates have the audacity to speak openly of their plan, an harassed populace would unceremoniously howl them down. Undue concentration of authority in the Federal Government—except for matters essential to the war effort—has been opposed by medicine on general principles; it is a natural first step to politically controlled medicine.
>
> "This new social-political philosophy has produced in England the all-inclusive, cradle-to-grave security plan of Sir William Beveridge. Let no American physician dismiss this with a shrug of pre-war isolationism. The American counterpart of the Beveridge plan is now on the President's desk. The nomadic First Lady chanced to be in Great Britain when the final touches were put on Sir William's opus; it is too much to hope that she was kept in complete ignorance of its content.
>
> "Regarding medicine, Sir William's report asserts that the system of approved and friendly societies has served its purpose and that 'the time has come to make health insurance national.' No doubt that phrase, too, is not only on the President's desk but has been mentioned at his fireside.
>
> "Legislation to achieve such a debatable Utopia appeared in the late, unlamented Wagner Act at whose wake some medicos celebrated, apparently prematurely, the assurance of continued professional freedom. . . . Possibly the new Congress, its independence reasserted, its spirit fortified, and its spine considerably stiffened by the November elections, will have something decisive to say about such legislative nostrums."

In its February 1943 issue, the *Westchester (N. Y.) Medical Bulletin* takes a somewhat different position, commenting as follows:

> "The Beveridge report is significant . . . as an indication that responsible Britons are trying to anticipate the social letdown, the strains and stresses of readjustment that will come when the military effort is finished and when the present great social incentive—the over all purpose of wartime—is suddenly taken out of industrial life."
>
> "The Beveridge report, in proposing to establish an all-embracing mutual insurance plan against the major hazards of industrial life, might well prove to be a step away from state socialism, rather than toward it. By providing a cushion against total dependency, by establishing, through the "National Minimum," a protected reservoir of purchasing power, by endowing every citizen with inalienable stake in the economic future of his society (from which may flow something of a sense of social purpose)—the insurance system may serve to disinterest the worker in the project of collective ownership which is the ultimate nemesis of the capitalist.
>
> "If we can assume that people as a whole, either in American or England, think they would be better off *with* some such plan as the Beveridge report anticipates, than *without* it—what then of the status of the medical profession? Let us think of the American picture. It is this writer's assumption that the trend toward collectivism is part and parcel of modern industrial and urban development—that it can be moderated, guided, perhaps even delayed—but that it is inevitable.
>
> "If this is so, would it not seem wise for physicians, within their own spheres of interest, to initiate, and, if possible, to guide and control the policies and plans under which they will be expected to live?"

Debate over the merits and demerits of the Beveridge plan and its application to this country will undoubtedly continue until the discussion period is terminated by definite word from the White House. It may then be resumed with greater vehemence. A more hopeful view is that the medical profession will be asked by the Government to assist in the development of a health program for the Nation.

NOMINATIONS

The following nominations for elective offices were made in the order shown at the business meeting of the Medical Society on March 3, 1943:

**For President-elect*	William T. Davis James N. Greear, Jr.
For First Vice President	Custis Lee Hall
For Second Vice President	Carolyn H. S. Pincock
For Member of Executive Board	A. Magruder MacDonald
For Member of Board of Censors	L. Lee Cockerille
**For Delegate to American Medical Association*	Coursen B. Conklin Henry C. Macatee
For Alternate Delegate to American Medical Association	Arthur C. Christie

* One to be elected.

Elections to the above offices will be held at the annual business meeting, May 5, 1943.

President's Page

ATTENDANCE AT BUSINESS MEETINGS

There is one thing medical societies have in common; they all struggle against the apathy of their members toward the conduct of their organizations and the economic problems confronting medicine. Better organized societies have periodically laid down a barrage of arguments why medical men must take these matters seriously. Yet the results have more frequently than not been disappointing.

In our own Society, the problem has been to get members to turn out for business meetings. If a meeting is strictly limited to business matters, as some have been, the attendance is usually small. This has been particularly true since we entered the war, which has undoubtedly been a contributing factor. Even the inclusion of speakers of note does not seem to add sufficient flavor to stimulate attendance.

One of the ablest speakers appearing before the Society in a long time spoke at the conclusion of a business session on March 3. The audience which greeted Congressman W. H. Judd of Minnesota was inexcusably small. However, those who were present were more than rewarded and could have listened to Dr. Judd for another hour. Incidentally, the business transacted at the meeting was of unusual importance and should have received the attention of every member.

Oddly enough, the attendance at scientific meetings has been good. In fact, it has been above average. A recent program attracted 400 physicians.

Perhaps the solution for our Society is to confine itself to an annual business session at which time policies for the ensuing year are laid down. Where emergencies arise, special meetings could be called. This procedure is in line with the present-day methods of conducting the business affairs of larger organizations.

War Section

NEWS FROM THE MILITARY FRONT

Dr. John Hugh Lyons, Past President of the Medical Society of the District of Columbia, entered the Medical Corps of the United States Army, February 1. He has been commissioned Lieutenant Colonel and assigned to Woodrow Wilson Hospital, Staunton, Virginia.

The number of Society members now in service totals 204. Among those who have entered the services in the past few months and who have not previously been listed in the MEDICAL ANNALS are Ralph M. Caulk, William D. Chase, Robert J. Coffey, Allen S. Cross, Ralph M. Crowley, Alfred A. J. Den, Harry M. Fletcher, Perry W. Gard, Nathan Glaubach, Clarence R. Hartman, Edmund Horgan, R. Lee Jackson, John H. Judson, Stephen E. Kramer, Wilkins R. Manning, Charles P. Ryland, Warren W. Sager and Maurice A. Selinger.

The November issue of the MEDICAL ANNALS contained a list of Society members in the armed services who had been advanced in rank. To that list the names of the following physicians who have likewise received recognition for meritorious service are now added.

William H. Beard, from Captain to Major
Worth B. Daniels, from Major to Lieutenant Colonel
Arthur Dick, from Captain to Major
George R. Farrell, from First Lieutenant to Captain
Theodore C. C. Fong, from Major to Lieutenant Colonel
Alfred Golden, from Captain to Major
Ralph J. Haws, from Major to Lieutenant Colonel
Benjamin P. Lafsky, from First Lieutenant to Captain
Edward C. Morse, from Major to Lieutenant Colonel
Arthur J. Mourot, from Lieutenant to Lieutenant Commander
Hilbert S. Sabin, from Captain to Major
John B. Smith, from First Lieutenant to Captain
Luther H. Snyder, from Captain to Major
Philip A. E. Stebbing, from Captain to Major
J. Duerson Stout, from Lieutenant Colonel to Colonel
John A. Swartwout, from First Lieutenant to Captain
S. Ross Taggart, from Major to Lieutenant Colonel
J. Lawn Thompson, Jr., from First Lieutenant to Captain
William J. Tobin, from First Lieutenant to Captain
George Tolstoi, from Captain to Major
John W. Trenis, from Captain to Major

LETTERS FROM PHYSICIANS IN THE SERVICES

The Secretary's news letters to members of the Society in the armed services brought prompt response. All who replied wished the letters continued and were anxious for more news from the home front. Excerpts from the letters received follow.

From Lieutenant Colonel Morris Chase, Camp Lee, Virginia:

Dear Ted: Received your nice two-page "newsy" letter of January 19, and would like to continue receiving same. As close as I am to Washington, all news and gossip come to me by way of Panama, strange as it may seem, and this in the following manner. There are two brothers, physicians, one in practice in Washington and the other one in the Army, stationed in Panama. The Washington brother is a veritable Walter Winchell, and he corresponds quite fully with the Panama brother. A classmate of mine is also stationed in Panama, with whom I correspond quite fully, and thus the course of information flowing from Washington to Panama to Camp Lee.

There are a number of things covered in your letter not covered by my Panama source and I would be grateful to have you continue sending me same.

From Lieutenant Colonel Theodore C. C. Fong, Darnall General Hospital, Danville, Kentucky:

Dear Mr. Wiprud: Thank you for your most interesting and welcomed letter. I think it is an excellent idea of yours to keep the members of the Society on active duty posted on current events and I hope you will be able to continue with the good work.

Since assuming my duties as Chief of the Neuropsychiatric Service last November, my work has trebled, and with a new psychiatric wing near completion I am kept busy with a large number of details necessary to open a new unit.

Your stories of psychiatric casualties are very timely and although you mention that psychiatrists keep most N.P. cases out of the service, many have slipped through and most likely will continue to do so.

Again I wish to thank you for your kind letter and I will be eagerly awaiting another news bulletin from the home front.

From Major Leo V. Schneider, Assistant Chief of Medical Service, Borden General Hospital, Chickasha, Oklahoma.

My dear Mr. Wiprud: It certainly was good to hear from the home front. Familiar names and familiar places were certainly pleasing to the ear. Washington today must be a tough spot to live. I imagine what devastating effect the gasoline and fuel rationing have had upon the social life of the City. Here in Oklahoma where everyone pumps oil in his backyard, gasoline is no problem, and although we are on rationing, pleasure driving is not banned for the moment.

Our problem here is the weather. The late Will Rogers used to say, "If you don't like the weather, just wait a minute, it will change." And how right he was. From now on until summer the so-called "changeable season" is in progress. Anything can happen. Sleet at breakfast, dust at noon, and the hot sweats by supper. The "blue norther" is exclusively an Oklahoman institution, and it is so called because of its peculiar appearance. When northern skies are blue, almost black, you've just got time to head for the stove. However, right now we are enjoying delightful balmy weather although only ten days ago the temperature dropped 72 degrees in less than eight hours.

The Borden General Hospital, where I am the Assistant Chief of Medical Service, is named in honor of Lt. Col. William Cline Borden, a distinguished officer of the Army Medical Corps, well known to the medical profession in Washington, D. C.

From Lieutenant Commander H. J. Monat, U.S.N.R., U. S. Naval Hospital, St. Albans, Long Island, N. Y.:

My dear Ted: Really, it was a wonderfully pleasant surprise hearing from you. Yes, I am back in this God's country, after roughing it for eleven months. I don't know whether you know it but I established the medical department for the Fleet Air Base in Iceland. Now that I am back I was appointed as Gastrointestinal Consultant at this huge 2000-bed hospital, and the experience gained here is enormous. Whenever doctors get together in the services they always arrive at the same topic: "What will happen to our practices after the war?," whether there will be a prepayment plan, and so on. We work here on a seven-day basis and if I get a chance I shall visit Washington and pay you a call.

From Lieutenant (j.g.) Jack L. Derzavis, M.C.-V(S)U.S.N.R., U. S. Naval Air Station, Corpus Christi, Texas:

Dear Mr. Wiprud: About two weeks ago I received your letter concerning current activities in and about the Society. It was very enjoyable and although I believe that you do not recall me personally, I know that all who are away from home felt your warm handclasp through the letter.

Down here, I am doing only my specialty; that is dermatology and venereal disease control. In December, I passed the examination for the American Board of Dermatology and Syphilology. Believe me, it is a great relief!

From Lieutenant Colonel Ralph J. Haws, Chief of Surgical Service, Valley Forge General Hospital, Phoenixville, Pennsylvania:

My dear Mr. Wiprud: Most everyone here, including myself, is busy trying to overcome some of the handicaps imposed on the personnel of a general hospital of approximately 2000 beds going through its formative stage. There are many growing pains experienced from the standpoint of supplying so large an installation, with even the critical things, not to mention a few of the luxuries one has been accustomed to in civilian life.

Mine is the job of setting up the Surgical Service which comprises approximately 800 beds and an operating section having nine operating rooms. When my service is fully staffed it will consist of 20 Medical Officers, perhaps several Medical Administrative Corps Officers, approximately 160 enlisted personnel of all grades, some 50 members of the Army Nurse Corps, and last but not least, some WAACS.

Your excellent description of conditions in the "Present Day Washington" was most interesting. Upon my last visit, the decrease in the number of automobiles was quite obvious. My friends at Saint Elizabeths seem to be particularly handicapped in this respect and for the most part are obliged to use other than their private cars as a means of transportation. Those of us in the service who are still in this country and have our cars with us are perhaps more fortunate because thus far we have not been particularly pinched for the want of essential gasoline.

From Major John W. Trenis, O'Reilly General Hospital, Springfield, Missouri:

Dear Mr. Wiprud: Thank you for your letter. I enjoyed hearing from you. We also enjoyed the letter you wrote to all of the men in the services. This was most thoughtful of you, and we were pleased to known that you had us in mind. We will look forward to more letters in the future. I have wished I knew the addresses of some of the men from Washington. If time and space would permit I am sure all of us would appreciate such in a letter or the Annals. This, however, would be a pretty big job, I am afraid.

From Major F. Daniel Suttenfield, 0-290718, A.P.O. #880, Postmaster, New York, N. Y.:

Dear Mr. Wiprud: It was a real pleasure to receive your letter of January 19. Speaking as a mere $\frac{1}{225}$ of those in absentia, if you intended to add a bit to the morale of us, you did just that. With no desire to offer a single complaint, I dare say that most, if not all, of us need such "little bits" as your letter from time to time.

It would seem that Washington has indeed undergone change. But these are indeed changing times, aren't they? We all must find our place in the changing picture. It is possible that I shall have the pleasure of seeing our much changed city within the next year or less. Personally, however, I've quite accepted the idea of not returning until the war ends. It seems to me that all roads from the U. S. should be oneway, leading to Berlin, Rome and Tokyo for the duration. Such an attitude will, if adopted by all, bring this global mess to an early conclusion.

I am happy to say that I have heard practically no criticism of the home front in the past half year. As a matter of fact, such as one hears now is quite in the vein of praise and trust. We all feel that the home front is in line. Of course, that feeling means much.

From Captain William A. Ryon, 7th Medical Battalion, Camp Pickett, Virginia:

My dear Mr. Secretary: Despite the pressure of time, I have been so impressed by your letter that I cannot resist writing a few lines in response at once. Its contents were most refreshing.

You ask us to write concerning our experiences and the knowledge we may glean from our present pursuits. Since my induction into the service, my opportunities for practicing my chosen profession have been practically nil. After nearly five months, my medical experience has been limited to the giving of immunity injections to the members of my company.

This situation in which I find myself is common to many others of my fraternity. Instead of surgery and the practice of medicine, I have been busily engaged in the training of troops in the art of camouflage, gas warfare, trench digging, map and compass reading, combat communications, military discipline and law, close and extended order drill, ambulance operation, and a host of other military procedures.

Do you imagine that this revision of our lives has discouraged us and developed a spirit of fatalism? If you do, let me hasten to emphatically deny such. . . . When we have learned to live the life of both a soldier and physician, then we can hope to perform the mission for which we are here.

Our job here as medical officers is very undramatic, very exacting, very strenuous, both physically and mentally . . . . We work and live hard, away from our former lives, loved ones and friends. . . . Who amongst us complains and regrets? No one . . . I have yet to hear one of our profession decry his present situation, no matter what sacrifice his being here has exacted of him. Are we discouraged by our present lot? No. Do we envy you, who retain the good things of our profession? Again, decidedly no.

I have been thrilled by the response that medicine has made in this crisis. I am proud to know that such men represent my profession. We will not fail at this end of the line. You can help us, though, if you will send us brief glimpses of our old lives through the type of communication I have received from you. It reminds us that we are not alone in this business and that there is something to work for and come back to.

MEETINGS

Wednesday, April 14

Scientific meeting and buffet supper. Program to be announced.

Wednesday, April 21

The Section on Pediatrics will present a panel discussion on Common Disorders of Children Met in General Practice

1. "Common Disorders of the Stomach and Intestine," Preston A. McLendon, M.D.
2. "Common Disorders of the Respiratory Tract," William F. O'Donnell, M.D.
3. "Meningitis," E. Clarence Rice, Jr., M.D.
4. "X-Ray as an Aid in Diagnosis," Isidore Lattman, M.D.
5. "Skin Conditions," William F. Burdick, M.D.

Wednesday, April 28

The District of Columbia Tuberculosis Association will present the following program:

"Tuberculosis and the War," Lieutenant Colonel Esmond R. Long, Chief, Tuberculosis Section, Office of the Surgeon General, United States Army; Director of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis, University of Pennsylvania

MEMBERSHIP

The following applicants for membership were duly elected to membership at the business meeting, March 3, 1943:

Active Members

Donald W. Ash, 638 Eighth Street, N.E.
Peter Paul Andrews, 4201 Fessenden Street, N.W.
Carl Berg, 1801 Eye Street, N.W.
Martin L. Cannon, 5411 Seventh Street, N.W.
Frederic D. Chapman, 1150 Connecticut Avenue, N.W.
Leonard M. Dub, 900 17th Street, N.W.
M. Russell Edmonston, 721 Decatur Street, N.W.
John Royal Ernst, 2737 Devonshire Place, N.W.
Pearl B. Holly, 900 17th Street, N.W.

Benjamin Isaacson, 5603 Georgia Avenue, N.W.
Elizabeth S. Kahler, 712 20th Street, N.W.
Edward M. Knecht, 1803 Biltmore Street, N.W.
Sydney Leventhal, 1108 F Street, S.W.
Henry H. Lichtenberg, 1328 Eye Street, N.W.
Richard Hamilton Meredith, 2607 Connecticut Avenue, N.W.
Thomas Richard Rees, 1527 16th Street, N.W.
Leo C. Varden, 1801 Eye Street, N.W.
George Davis Weickhardt, 638 8th Street, N.E.
Jacob J. Weinstein, 900 17th Street, N.W.
Carl Hunt Wells, Jr., 1835 Eye Street, N.W.

Associate Member

Jacob E. Shillinger, Highland, Howard County, Maryland

The following applicants for membership will be voted on at the business meeting, May 5, 1943:

For Active Membership

Lawrence M. Drennan, Georgetown University—1934
Wesley Fry, University of Virginia—1932
John Andrew Kennedy, Georgetown University—1929
Leland S. Madden, Medico-Chirurgical College of Philadelphia—1906
Robert Franklin Owen, Georgetown University—1940
Henry Robert Pear, University of Maryland—1932
George A. Resta, Georgetown University—1930
Walter J. Romejko, Jefferson Medical College—1938
Dorothy V. Whipple, Johns Hopkins Medical School—1929
Uthai Vincent Wilcox II, George Washington University—1939

For Associate Membership

Benvenuto R. Diño, University of the Philippines—1933
James J. Feffer, Indiana University—1938

NEWS AND PERSONALS

The American College of Surgeons has scheduled a series of twenty War Sessions throughout the United States during March and April which will be devoted to new developments in military and civilian medical and hospital services. The regional meeting for Virginia, Maryland and the District of Columbia will be held in Richmond, March 19, at the John Marshall Hotel. Representatives of the United States Army, United States Navy, United States Public Health Service, United States Office of Civilian Defense, and the War Manpower Commission, Procurement and Assignment Service, will address the meetings.

Members of the Society who will participate in the program are Colonel Daniel L. Borden, M.C., U.S.A., Dr. Harry H. Kerr, Dr. Charles S. White and Dr. Oscar B. Hunter. Colonel Borden will speak on "Care of the Ill and Injured in Combat Zones" at the morning session. In the afternoon Round Table Conference devoted to "Special Wartime Problems of Hospitals," Dr. Hunter will discuss "Maintenance of Minimum Standards," with special reference to medical staff conferences, medical records and special services. O. K. Fike, Director of Doctors Hospital, and Miss Mattie M. Gibson, Superintendent of Children's Hospital, will also take part in the Hospital Conference.

The American College of Chest Physicians has cancelled its annual meeting for 1943. The Board of Regents recommended that wherever feasible, State and District Chapters of the College arrange to meet jointly with their State and District medical societies and assist in preparing scientific programs devoted to diseases of the chest. The College has previously held its annual meetings in conjunction with the annual sessions of the American Medical Association.

The American Urological Association announces that the $500 Research Prize offered annually for an essay in the field of urology will not be awarded this year. Plans for the June meeting of the Association in St. Louis have also been cancelled.

A National Health Advisory Council was organized in Washington, February 5, by the United States Chamber of Commerce to consider national health problems in relation to the war program. The Council will endeavor to bring about a better understanding and appreciation of medical science by the public. The U. S. Chamber of Commerce and its membership of trade associations, chambers of commerce, corporations and firms will provide the channels for distributing approved technical health information developed by scientific associations.

The Council is composed of thirty of the nation's leading health and medical authorities. Dr. James S. McLester, Professor of Medicine, University of Alabama, is General Chairman. The committees and their chairmen are Community Health Committee, Dr. Wilson G. Smillie, Cornell University; Industrial Health Committee, Dr. Leverett D. Bristol, Health Director of the American Telephone and Telegraph Company; Individual Health Committee, Dr. James E. Paullin, President of the American Medical Association and Professor of Medicine, Emory University. Dr. Wallace M. Yater, Professor of Medicine, Georgetown University, is a member of the latter committee.

The District Dental Society has cancelled its annual Five-State Postgraduate Clinic, originally scheduled for March.

Honorary Membership in the Medical Society of the District of Columbia was conferred upon **Major General James Carre Magee,** Surgeon General of the United States Army, **Rear Admiral Ross T. McIntire,** Surgeon General of the United States Navy, and **Dr. Thomas Parran,** Surgeon General of the United States Public Health Service, at its regular business meeting, March 3. The Society's Executive Board recommended recognition of these physicians because of their "eminent contributions to medicine or collateral science" and their "meritorious services to the medical profession."

Dr. Paul F. Dickens has succeeded Dr. F. X. McGovern as State Chairman of Procurement and Assignment Service for the District of Columbia. Dr. Dickens received his degree in medicine from the University of Nashville in 1905. Following postgraduate study at the United States Naval Medical School, he was commissioned to serve in the Medical Corps of the United States Navy, retiring several years ago as Lieutenant Commander. He is at present Clinical Professor of Medicine and Director of the Cecilia Cummings Research Fund Clinic of George Washington University School of Medicine, and Chief of Medicine, George Washington University Hospital. Professional organizations of which he is a member include the American Medical Association, the American College of Physicians and the Medical Society of the District of Columbia. He is a diplomate of the American Board of Internal Medicine.

At the Society's business meeting, March 3, it was voted to change the name of the Committee on Military Affairs to the **Committee on War Participation.**

Dr. Jesse T. Mann was elected a member of the Board of Censors to succeed Dr. Allen S. Cross, resigned, who entered military service several months ago.

Dr. Walter A. Bloedorn was reëlected to membership on the Board of Trustees of Group Hospitalization, Inc.

The nomination of **Dr. Fred O. Coe** to succeed himself as Vice President of the Washington Academy of Sciences, representing the Society, was approved.

The Washington Gynecological Society, at its meeting, January 23, observed in a resolution eulogizing **Dr. J. Lewis Riggles** that he was an "outstanding specialist in Obstetrics and Gynecology," in whose death the Society lost "one of its valuable members . . . whose professional life has been an inspiration and an example . . . " Dr. Riggles, a charter member of the Society, died December 8, 1942. The resolution was presented by Drs. Elijah W. Titus, Jerome F. Crowley and John W. Warner.

The Washington Ophthalmological Society met February 15 in the Medical Society's auditorium. Dr. Grady Clay of Atlanta, Georgia, spoke on "Ophthalmoscopic Findings in Certain Diseases." Two case reports were given: "Coates Disease," Dr. Edward J. Cummings; "Leiomyoma of the Iris," Drs. William T. Davis, Ernest Sheppard and Walter Romejko. Case presentations were made by Drs. Thomas R. Rees, Benjamin Rones and Inez Wilber.

Dr. John W. Burke was host to the **Clinico-Pathological Society,** March 2, at the Metropolitan Club. Rudolph Schoenfeld, Counsellor of the American Embassy to the Exiled Governments in London, spoke on "Impressions of Life in London Today." A case report on "Laryngectomy" was given by Dr. Daniel B. Moffett.

Dr. John F. Busch has been appointed Director of Medical and Health Service for the Eastern Area of the American Red Cross with headquarters in Alexandria, Va. Dr. Busch has been on the staff of the Division of Tuberculosis Control of the Georgia State Department of Public Health since 1937.

Dr. Herbert P. Ramsey was appointed Associate Editor of the Medical Annals at the meeting of the Executive Board, January 25.

Antonio Ciocco and **Isidore Altman** are the authors of an article entitled, "Statistics on the Patient Load of Physicians in Private Practice," which appears in the February 13 issue of the *Journal of the American Medical Association.* The article is based on studies made in the District of Columbia and Baltimore, Md. Dr. F. X. McGovern, State Chairman of Procurement and Assignment Service for the District of Columbia, and Theodore Wiprud, Secretary of the Medical Society of the District of Columbia, are credited with coöperating in the study made in the District of Columbia.

Dr. William DeKleine was selected as "V-man of the week" by the Junior Board of Commerce, February 13. He was the second recipient of this award. Ferdinand A. Nauheim, Chairman of the V-Man Campaign, praised him for his contributions to home-front activities. Dr. DeKleine is in charge of physicians conducting Selective Service examinations at Georgetown Hospital. He is also an instructor in first aid and is taking an active part in committees working on nutrition problems. He was formerly Medical Director for the Red Cross.

Dr. J. Winthrop Peabody, President of the American College of Chest Physicians, attended the Mid-Winter Meeting of the Board of Regents in Chicago, February 14.

Dr. Emil J. C. Hildenbrand will present a scientific exhibit and motion picture film on "Refrigeration Anesthesia" before the Seventh Annual Meeting of the New Orleans Graduate Medical Assembly, March 15–18. Dr. Hildenbrand read a paper on "Low Back Pain" before the University of Richmond Medical College, February 26, and delivered the assembly address at Washington College, Chestertown, Maryland, January 21. His subject was "Preparation for Life."

The resignation of **Dr. Dexter M. Bullard** of Rockville as Chief of Emergency Medical Service for Civilian Defense in Montgomery County was accepted by Judge Albert E. Brault, Civilian Defense Director of Montgomery County, February 26. **Dr. Willard P. McNeill** of Takoma Park has been appointed to the post. Judge Brault praised Dr. Bullard for his outstanding contribution to the Civilian Defense organization.

Dr. W. Calhoun Stirling, Chairman of the Inter-Professional Conference, gave a resumé of the work of the Conference before the Public Health Committee of the Washington Board of Trade, at a luncheon meeting, February 26.

Dr. George C. Ruhland addressed members of the Bureau of Public Health Nursing, February 27, in the Medical Society's auditorium.

Dr. Russell J. Fields and **Theodore Wiprud** were recently appointed by the Executive Board to represent the Society on the Nursing Council for War Service. Dr. Fields will represent the Society on the Executive Committee.

Major Leo V. Schneider, M.C., U.S.A., an Associate Member of the Society, is Assistant Chief of Medical Service of the Borden General Hospital, Chickasha, Oklahoma, the dedication of which was of particular local interest. **Lieutenant Oscar Benwood Hunter, Jr., M.C., U.S.A.,** is on the laboratory staff of this hospital.

Dr. Charles P. Cake gave a talk on tuberculosis at the Cherrydale Health Center, February 8.

Ciba Pharmaceutical Products, Inc., and **Burroughs Wellcome & Company** are recent recipients of the Army-Navy "E" Award, and were congratulated for the part they are playing in winning the war through the preparation of medicinal products and medical equipment.

The Medical Society is indebted to the **Woman's Auxiliary** for the gift of a beautiful silk flag for its auditorium.

CORRESPONDENCE

Washington, D. C., February 26, 1943

Mr. Theodore Wiprud, Secretary
Medical Society of the District of Columbia
Washington, D. C.

Dear Mr. Wiprud:

On behalf of the District of Columbia Society of

Medical Technologists I wish to thank you for your kind invitation to our members to attend the recent symposium on "Virus Pneumonia" at the District Medical Society.

We were delighted to have such an excellent opportunity to learn about this disease and we are very grateful to you for your generous invitation.

Yours very sincerely,
Ellen Russell, Secretary
District of Columbia Society
of Medical Technologists

BOOKS RECEIVED FOR REVIEW

Burns, Shock, Wound Healing and Vascular Injuries. Military Surgical Manuals V. National Research Council. Pp. 272. Philadelphia: Saunders, 1943.

Essentials of Gynecology. Willard R. Cooke, M.D., F.A.C.S. Pp. 474. Price, cloth, $6.50. Philadelphia: Lippincott, 1943.

Diseases of the Breast. Charles F. Geschickter, M.A., M.D. Pp. 829, with 593 illustrations. Price, cloth, $10.00. Philadelphia: Lippincott, 1943.

Manual of Veterinary Bacteriology, 4th ed. Raymond A. Kelser, D.V.M., A.M., Ph.D., Brigadier General, U.S.A.; Chief, Veterinary Division, Surgeon General's Office, War Department, Washington, D. C., and Harry W. Schoening, V.M.D., Chief, Pathological Division, Bureau of Animal Industry, and Assistant Chief, Bureau of Animal Industry, U.S. Department of Agriculture, Washington, D.C. Pp. 719. Price, cloth, $6.50. Baltimore: Williams & Wilkins, 1943.

BOOK REVIEWS

Constitution and Disease (Applied Constitutional Pathology). Julius Bauer, M.D., Professor of Clinical Medicine, College of Medical Evangelists, Los Angeles, Calif.; formerly Professor of Medicine, University of Vienna. Pp. 208. Price, cloth, $3.50. New York: Grune & Stratton, 1942.

This book is essentially a summary of the author's lectures at the University of Vienna, where he was Professor of Medicine from 1923 to 1938. His effort is not to teach endocrinology but to correlate the facts with the particular situation encountered in the individual patient. Throughout the book there is an emphasis on the treatment of the patient as a whole, with sly hints that physicians in this country deal too much with applied exact science and too little with a thorough understanding of the patient himself.

The author has some excellent ideas about the useful role of the placebo in medicine. He discusses fully the neuropathic constitution and offers valuable suggestions for positive therapeutic results. The final chapters contain a thorough discussion of all major diseases in which constitutional heredity plays a part.

For the well-read physician, this book will provide a good review of the importance of the constitution of the patient in relation to his disease. For the "specialist" and the busy general practitioner, Dr. Bauer's words should lead to a further awakening to the fact that medicine today too often concerns itself with dogmatic exact science, and too little with an understanding of the patient as a whole.

T. M. L.

Ophthalmology and Otolaryngology. Military Surgical Manuals II. National Research Council. Pp. 331. Philadelphia: Saunders, 1942.

To estimate the value of this book, a consideration of its authors is of primary concern. A better and a more outstanding group of specialists than those who compiled this work could not be found. The book has a wide variety of material carefully condensed, with a directness that sets forth in simple style the best surgical and medical knowledge and experience of its authors. For the military surgeon in the field the chapters in Ophthalmology covering acute inflammations of the eye and medical treatment of the eye, are very helpful. Likewise the chapter in Otolaryngology on the primary treatment of gun-shot wounds of the face gives practical guidance to the surgeon who is compelled to meet these problems under combat or field conditions. Any military or civilian physician who has access to this book has a worthy and valuable assistant within its covers.

Edward J. Cummings, M.D.

JOSEPH FRANCIS ELWARD, M.D.

(1890–1943)

Dr. Joseph Francis Elward, well-known Washington roentgenologist, died February 6, 1943, at the home of his stepmother, Mrs. Thomas Elward, at Plains, Pennsylvania, near Wilkes-Barre. He had been ill for some time, having retired from active practice about a year ago. His home was at 4441 Hawthorne Street, N.W.

Dr. Elward was born in Plains, Pa., July 4, 1890, and received his early education there. He first became interested in pharmacy and graduated in 1915 from the Philadelphia College of Pharmacy and

Science. Deciding later on a career in medicine, he entered Georgetown University and received his degree in 1919. The same year he was licensed to practice in the District of Columbia.

He served George Washington University School of Medicine as Clinical Instructor in Radiology, and was a radiologist on the staff of George Washington University, Sibley and Homeopathic Hospitals. He was a member of the faculty of Georgetown University School of Medicine from 1925 to 1930.

Dr. Elward was an Active Member of the Medical Society of the District of Columbia from 1921 with the exception of one year, 1925, when he was an Associate Member. He held Fellowship in the American Medical Association and the American College of Radiology, and was a diplomate of the American Board of Radiology. Other professional organizations to which he belonged were the American Roentgen-Ray Society, the Radiological Society of North America, the American Therapeutic Society, the American Association of Medical History, the Georgetown Clinical Society, Washington Medical and Surgical Society, Washington Clinical Club, and the Medical Society of Virginia, Maryland and the District of Columbia.

Mrs. Mary Tourville Elward survives her husband, together with three children, the Misses Kathryn and Mary Louise Elward and Joseph F. Elward, Jr., all of Washington.

HENRY TAYLOR MILLER, M.D.

(1881–1943)

Dr. Henry Taylor Miller, ophthalmologist and otorhinolaryngolist, died February 7, 1943, at Doctors Hospital, following an operation. He resided at 1510 Webster Street, N.W.

Dr. Miller was born at "Mountain Green," the family home near Washington, Virginia, February 23, 1881, the son of State Senator John J. Miller. He received his degree in medicine in 1905 from the University College of Medicine, Richmond, now the Medical College of Virginia. He had practiced in Washington for 23 years and was a member of the staff of Doctors and Episcopal Eye, Ear and Throat Hospitals.

Dr. Miller became an Active Member of the Medical Society of the District of Columbia in 1920. He withdrew his membership for a few years because of illness and was reëlected in 1939. He was also a Fellow of the American Medical Association.

Surviving are his wife, Mrs. Katherine Skinner Miller; three brothers, Colonel B. F. Miller, U.S.A., retired, of Rappahannock County, Va., George Tyler Miller of Front Royal, Va., W. Arthur Miller of Washington, Va.; and two sisters, Mrs. James M. Settle of Rappahannock County, Va., and Mrs. C. Loomis Booth of Front Royal, Va.

(*Continued form page 96*)

posteriorly, and the anterior commissure. In dilatation any stretching at these points should be avoided. The ordinary indications and contraindications should also be borne in mind in order that undesirable results may be prevented.

1801 Eye Street, N.W.

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2. Levy, Edward: Anorectal musculature. Am. J. Surg., 1936, **34**, 141.
3. Miles, W. E.: Observations upon internal piles. Surg., Gynec. & Obst., 1919, **29**, 497.
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(*Continued from page 106*)

crine disturbances and delinquency, incorrigibility, sexual perversions, and other anti-social conditions can be demonstrated often enough to warrant a thorough endocrine study in all cases of children presenting a behavior problem. The organic approach must not be neglected for the formal psychologic approaches. The psychobiologic or eclectic approach is the most scientific in dealing with such a complex problem as juvenile behavior.

A method has been described of working directly with the child through the medium of play-interviews. The procedure provides opportunities for the child to express his feelings and thoughts through the medium of dolls as if they were responsible for what was done. Facts obtained in this manner are free from adult interpretation and help to contribute to the mental hygiene in childhood.

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AN EVALUATION OF SYMPATHECTOMY*

O. HUGH FULCHER, M.D., F.A.C.S.
Lieutenant Commander, Medical Corps, United States Naval Reserve; Associate Professor of Clinical Surgery, Georgetown University School of Medicine

SURGERY of the sympathectic nervous system represents one of the newest fields, and its indications are still in the stage of controversy because of the rather vague conception of the neurophysiology of the conditions for which it is performed. With the advancement of knowledge of neurophysiology of certain disorders the indications for the correct method of therapy are becoming more definite. The following comments are based upon experience with sympathectomy for the specified conditions.

Atony of the Bladder

A patient suffering with atony of the bladder should have a thorough examination to eliminate the possibility of any cord lesion, pressure on the cord or the cauda equina, or syphilis of the central nervous system. If no organic lesion can be demonstrated, it may be assumed that there exists a true imbalance between the sympathetic and the parasympathetic nerves of the bladder. This imbalance may be due to overstimulation of the sympathetic or inhibitor nerves or to normal stimulation of the inhibitor nerves but underfunctioning of the excitor or parasympathetic nerves. In either event the elimination of the sympathetic impulses will permit the parasympathetic nerves to function without the presence of the antagonist, and this fact represents the basis for presacral sympathectomy. After the operation has been performed it is always necessary to place an indwelling catheter in the urethra for a period of about 2 weeks to permit the return of the muscular tonus of the bladder. By the time that the patient is able to become ambulatory the catheter is removed and he is instructed to attempt to void every 2 hours. This instruction is necessary because the micturition reflex has been ignored for so long that the sensation for the desire to void has to be redeveloped. The following is an illustrative case.

G. Y., a married colored man of 41 years, was first seen on November 14, 1933, because of dysuria of 8 years' duration. During this time there had gradually developed a suprapubic mass. At the time of the first visit he could void only by getting in the sitting posture and exerting pressure on the suprapubic mass. General physical examination was negative except for a mass in the lower abdomen which extended 2 cm. above the umbilicus. Neurologic examination was negative except for a rather weak bulbocavernosus reflex. The Kahn test for syphilis was negative. A catheter was placed in the urethra and the patient was put to bed. Later a cystoscopic examination was performed which revealed no obstruction to the outflow of urine. The expulsive force of the bladder was practically nil. As one forced the fluid out of the bladder by manual pressure over the suprapubic region the vesical wall would fold like wet tissue paper. To eliminate the possibility of any obstruction, the urethra was repeatedly dilated to a no. 35 F. sound. In every instance, immediately upon removing the catheter, the residual urine would become about 3,500 c.c., when the patient could again void as described above. On December 28, 1934, after 6 weeks of observation, a presacral sympathectomy was performed under spinal anesthesia. The convalescence was uneventful and he was discharged from the hospital on January 16, 1934. The indwelling catheter was kept in situ for 14 days, after which time the patient was instructed to attempt to void every hour during the day and he was awakened every 2 hours during the night in order that he might attempt to void. Within 4 weeks after the operation the residual urine was only 15 c.c., and within 3 months it had been reduced to 6 c.c., an amount that has remained constant, due perhaps to the relaxation of the trigone. The stream was forcible and there was no dribbling. There has been no frequency and the patient voids about 300 c.c. at a time. He has had no nocturia since leaving the hospital. On February 18, 1935 he returned to the hospital because of a dislocation of the head of the right femur. Under general anesthesia the dislocation was reduced. He remained in bed 4 days, during which time he had no difficulty in voiding in the reclining position. Unfortunately the residual urine was not determined at that time.

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* Read at the Staff Meeting of the National Naval Medical Center, Bethesda, Md., October 24, 1941.

In the female there appear to be no ill effects from presacral sympathectomy, but in the male ejaculation is impossible because of paralysis of the ejaculatory muscles. The patient has the usual psychic orgasm, and frequently there is increased potency.

Chronic Interstitial Cystitis

Chronic interstitial cystitis represents a condition that is difficult to treat. Since the afferent fibers to the mucous membrane of the bladder are supplied by the parasympathetic system, presacral sympathectomy will not give complete relief. However, it will eliminate the pain of muscular origin, that due to spasticity of the internal sphincter, and whatever pain may result from ischemia of the vesical wall.

A presacral sympathectomy was performed on a white woman 39 years of age, who had been suffering with dysuria and polyuria for a period of 6 years, during which time she had been treated by a urologist who had diagnosed the condition as chronic interstitial cystitis. Before the operation she had experienced little relief from the treatment, but after the operation she responded to the same treatment during the succeeding 3 months and became quite comfortable. The urologist who was studying the vesical mucosa through a cystoscope during the operation observed hyperemia immediately after the presacral nerves were severed. He attributed the response to treatment after the operation to the improved nutrition of the mucosa resulting from increased blood supply.

In view of this experience it appears that presacral sympathectomy may have limited value for patients suffering with intractable chronic interstitial cystitis.

Primary Dysmenorrhea

Presacral sympathectomy has been done on 30 patients who were suffering with primary dysmenorrhea and who had not been relieved by endocrine therapy. Most of these patients were underweight and highly nervous. The ages varied from 22 years to 38 years. The results were excellent in 15 patients. Ten patients showed some improvement, and 5 showed no improvement. The patient invariably began menstruating on the third or fourth day after the operation regardless of the stage of the menstrual cycle.

All these patients should have psychiatric examinations before they are selected for presacral sympathectomy. The percentage of good results might have been greater in this series had all the patients had psychiatric studies, since most of the 5 who failed to get any benefit would probably have been rejected.

Megacolon or Hirschsprung's Disease

Megacolon is a disease of neurogenic origin in which the mechanism for retaining the intestinal contents overbalances the emptying mechanism. It responds very well to presacral sympathectomy combined with resection of the inferior mesenteric nerves if the patient is young. In adults in whom a large amount of fibrosis exists in the walls of the colon the results have not been very satisfactory. Such an operation on a child 3 years of age who had a large abdomen and on whom a barium enema showed a tremendously dilated colon gave excellent results. Following the operation the abdomen became diminished in size and the colon emptied normally. However, the same operation performed on a woman 45 years of age suffering with severe megacolon gave only slight improvement. Medical treatment had to be continued, but the response was more satisfactory than prior to the operation.

The term "presacral sympathectomy" is used to denote the severing of the superior hypogastric plexus and the lateral chains at the level of the promontory of the sacrum.

CAUSALGIA

Causalgia is a condition which usually involves one of the extremities and results from a rather minor injury or repeated minor injuries. It is characterized by discoloration of the skin, edema, marked sweating, and a diffuse burning pain which is made worse by the application of heat. Any emotional disturbance increases the pain. As the disease progresses the skin becomes white and loses its elasticity, the joints become stiff, and osteoporosis develops. If the causalgia is mild, spontaneous cure may result, but in severe untreated cases amputation may become necessary. If one is doubtful of the diagnosis he may block the appropriate sympathetic nerves temporarily with a 2 per cent solution of novocaine to observe whether the pain disappears. Thus he is able to determine the probable results of a permanent sympathectomy. During the last 5 years sympathectomy was performed on 5 patients suffering with causalgia with good results in all instances.

L. C., a white unmarried man of 34, who had received a rather minor injury to the dorsum of the right hand on July 15, 1937 developed much edema, and several days later a severe burning pain began to develop in the entire right hand which grew worse. About 10 days following the injury he was placed in the hospital and hot packs were applied which increased the pain. The patient was first seen on October 2, 1937, at which time he had been in the hospital for over 2 months and was receiving large doses of opiates every 4 hours. He kept the right hand covered with cotton, and it was impossible to do any examination because of the tenderness. The soft tissues appeared edematous, the skin was bluish, and the fingers were held semiflexed. The weight of the cover, a breeze, any noise, or emotional disturbance increased the pain. On October 4 the upper 4 thoracic ganglia on the right were injected with 2 per cent novocaine solution with complete relief for about 2 hours. After the injection the skin of the right hand was thick and inelastic, and there appeared to be fibrosis of all the joints. On October 13, 1937, under general anesthesia the upper 4 thoracic ganglia on the right were excised with resulting permanent relief of the pain in the right hand, and normal function gradually returned. There was considerable difficulty in eliminating the morphia, but during this time all complaints of pain were referable to the incision and not to the hand.

The bony changes may develop very rapidly in the extremity involved with causalgia. A white married woman of 38 years sprained her ankle on March 29, 1939, at which time roentgenograms revealed the bones to be normal in every respect. Following this injury typical causalgia developed, and on August 7, 1939, another X-ray film revealed severe osteoporosis. Appropriate sympathectomy was performed on August 15, 1939, and another film made on November 18, 1939 showed striking recalcification of the bone although the patient had used the foot very little because of an intercurrent illness.

There are several criteria which will aid one to make a diagnosis of causalgia. Heat and massage will increase the pain, and the smoking of cigarettes tends to increase the discomfort, whereas drinking alcoholic beverages tends to give relief. Novocainization of the appropriate sympathetic ganglia will always give complete relief of pain temporarily. All patients suffering with this condition appear to be sympatheticotonic and in a state of nutritional deficiency at the time of the inciting injury. The tentative diagnoses of traumatic neurosis or of hysteria had been made in all 5 cases.

RAYNAUD'S DISEASE

Raynaud's disease affects women principally. It is characterized by blanching of the skin of the extremity involved when exposed to cold or when the patient experiences an emotional disturbance. This blanching of the skin is followed by various hues of discoloration during the return to normal color. The advanced stage of Raynaud's disease consists of fibrosis of the skin, loss of its elasticity, and finally the development of gangrene. All cases of Raynaud's disease respond to the appropriate sympathectomy providing the disease has not progressed to that stage in which the arterioles and capillaries have become sclerosed so that dilatation is a mechanical impossibility.

A white married woman of 48 years who had severe Raynaud's disease of all 4 extremities and of the nose, lips and ears was operated on in July, 1941. She had noticed the blanching and subsequent color changes of these parts during the preceding 10 years upon exposure to cold or during anger. About 15 months previously she was advised to "smoke for her nerves." Within 3 months after the onset of smoking there developed gangrene of the tip of the index finger of the right hand associated with excruciating pain. Later gangrene began to develop in the middle and ring fingers. A bilateral cervicothoracic sympathectomy gave her complete relief of symptoms referable to the head and upper extremities. The ulcerations healed leaving disfigurement but good function. The feet had not yet been treated.

Even in moderately advanced cases the results are frequently dramatic. After sympathectomy the extremity is more sensitive to adrenalin, and for this reason adrenalin should never be administered until after the nerve degeneration is complete, a process that requires about 2 years. During anger enough adrenalin is produced to cause severe blanching and coldness of the sympathectomized extremity. The patient should be advised of this fact.

Further studies of the history of this case indicated that she was handling the Raynaud's disease fairly well until she assumed the habit of smoking cigarettes which appeared to precipitate the development of gangrene.

ESSENTIAL HYPERTENSION

Hypertension is causing twice as many deaths as cancer and therefore represents the gravest problem that confronts the medical profession. Regardless of whether it is a symptom or a disease it kills people who would survive if they did not have high blood pressure. The arteries of patients suffering with hypertension always exhibit a state in which spasm is dominant before sclerosis is developed. It is only in the spastic stage of hypertension that sympathectomy should ever be considered. In addition to the usual examination there are two important tests which will aid one in selecting patients who may respond to sympathectomy: (1) The patient's hand is immersed in ice water, and if the hypertension is still in the spastic stage the systolic blood pressure will rise 7 mm. Hg or more within 1 minute; (2) the patient is put to sleep by administering evipal or pentothal sodium solution intravenously, and the blood pressure should fall to normal or to approximately normal if the spastic stage of hypertension is still present. If there are no other contraindications and if the requirements of these tests have been fulfilled, the patient is a candidate for surgery. Few patients over 50 years of age will comply with the requirements of these tests.

C. A. B., a white married man of 38 years, was first seen on November 13, 1938. His father had died of hypertension, and a sympathectomy for hypertension had been done on his sister at the age of 36. On January 9, 1938, the patient had a "stroke" which produced a left hemiplegia. Since then he had been in bed constantly for fear of another stroke, and the blood pressure had ranged from 210 to 250 systolic and 110 to 180 diastolic. The examination revealed a highly nervous man of about 38 years with a left hemiplegia. The blood pressure was 240/150, and the retinal arteries were mildly sclerosed. After he immersed a hand in ice water the systolic blood pressure became 280; under evipal anesthesia the blood pressure dropped to 150/100. The blood urea and creatine were 19 mg. and 1.5 mg. respectively. The urine was negative. On November 16, 1938, the left splanchnic nerves were incised and the left lumbar ganglia were removed. The same procedure was carried out on the right side on November 25, 1938. Following the first operation the blood pressure decreased very little, but following the second procedure the blood pressure dropped to 120/70, and at the time of discharge on December 15, 1938 the blood pressure was 140/90. During the past year the blood pressure has ranged between 150 to 160 systolic and 80 to 90 diastolic; the blood chemical tests have remained normal. Of course, the patient still has his hemiplegia, but he is enjoying life with some degree of security and without the ever-present fear of another stroke.

If patients suffering with hypertension are carefully selected, the results will be excellent in 50 per cent of the cases and good in 80 per cent. At the present time and with the present methods of selection there exist about 20 per cent failures, so far as the blood pressure is concerned. Even in the patients whose blood pressure is not decreased the symptoms of headache disappear and the blood chemistry frequently becomes normal, if elevated.

ANGINA PECTORIS

Since surgery on patients suffering with angina pectoris is rather hazardous, alcoholic injections of the thoracic ganglia have been preferred for this condition. This procedure is reserved for those patients suffering with angina pectoris whose pains cannot be controlled medically. The procedure is carried out only on the recommendation and with the coöperation of the cardiologist.

C. S. H., a white man of 51 years, began to have substernal pain in March, 1939. About July 14, 1939 the pain became so severe that he was confined to the house. A cardiologist had diagnosed the condition as angina pectoris and prescribed treatment. In spite of vigorous therapy the pains had not been controlled, and during the 3 weeks preceding August 19 the patient had been unable to undertake any exertion without precipitating an attack. He had slept very little and had lost his appetite. During the illness his weight had diminished from 213 to 145 pounds. On August 19, 1939, an alcoholic injection of the left upper 4 thoracic ganglia was performed which effected relief of pain until September 24, when there developed distress in the right substernal region and in the throat. On September 27, the corresponding sympathetic ganglia on the right were injected with alcohol. Following the injections there developed intercostal neuritis which lasted about 6 weeks, but there was complete relief from the old anginal pains. Excessive exercise, however, provoked a choking sensation. He returned to his former work as a carpenter on March 1, 1940, since which time the cardiologist has made repeated examinations including several electrocardiograms and he thinks that the cardiac condition has greatly improved.

After alcoholic injection of the upper thoracic ganglia Horner's syndrome appears on the side injected. Katz[1] has shown that the sympathetic nerves cause coronary constriction in dogs, and Raney[2] has demonstrated that the same is true in man especially when the coronary artery is diseased. Allen[3] has demonstrated that one of the great factors to combat in vascular disease or thrombosis is spasm of the collateral circulation. Therefore, from these studies it would appear that alcoholic injections of the cardiac nerves have a distinct curative value as well as the elimination of pain, because this type of sympathectomy eliminates the vasospasm and does permit a greater blood flow. Moreover, an attack of angina pectoris creates fear in a patient, and the fear syndrome is characterized by tachycardia and a rise in blood pressure which represent the equivalent of physical exertion so far as the heart is concerned. After sympathectomy the heart rate is partly independent of physical exertion, a state that in itself serves as a safeguard to cardiac exertion. The objection is often advanced that after sympathectomy the chief signal to the physician is lost. There still remains the choking sensation in the neck from impulses conveyed by the vagus nerve, and this serves as an adequate signal. Moreover, the organic pathology of the heart is determined by more exact means, and the signal of pain which serves to satisfy the curiosity of the physician is of little clinical or therapeutic value but is of great harm to the patient because of the fear syndrome evoked.

Hyperhidrosis

Hyperhidrosis has been known to become an incapacitating malady in some people. One such patient who was a stenographer was adequately relieved by bilateral alcoholic injection of the upper 2 thoracic ganglia. However, alcoholic injection of the appropriate sympathetic ganglia is not recommended for hyperhidrosis because of the frequency of ensuing intercostal neuritis. Operation appears preferable if the condition is severe enough to warrant the procedure.

Thromboangiitis Obliterans

Sympathectomies of the cervicothoracic type for Buerger's disease involving the upper extremities and of the lumbar type for the disorder involving the lower extremities have been performed with good results. This procedure was performed with the purpose of eliminating the spasm of collateral circulation. It appears that surgical sympathectomy is rarely indicated in this disease since there are other means of eliminating the sympathetic impulses until collateral circulation is adequate, such as repeated injections of triple typhoid vaccine intravenously, the administration of hypertonic solution intravenously, the use of the oscillating bed, the pavaex boot, or the alternating tourniquet, and various exercises.

Allen[3] stated that the chief cause and detrimental results in pulmonary embolism and cerebral thrombosis is due to the spasticity of the remaining patent arteries. If this is true then temporary sympathectomy performed by injecting novocaine bilaterally into the upper thoracic ganglia may prevent death in cases of pulmonary embolism; or it may prevent death or greatly diminish the area of cerebral destruction in patients suffering with thrombosis. This procedure has not been tried for these conditions. On January 6, 1940, a patient who had been suffering with thrombosis of the left middle cerebral artery since December 13, 1939 became greatly improved when he developed a fever resulting from an attack of grippe. The blood pressure had been 160/88 since the onset of illness. He was almost completely paralyzed on the right side and was unable to articulate adequately to be understood. Within 2 hours after the rather sudden elevation of his temperature the blood pressure fell to 138/78, the speech improved to the point that he could be understood, and there developed much more motion of the right extremities. Could this improvement have been due to the temporary sympathectomy resulting from the fever which eliminated the cerebral vaso spasm?

Thrombophlebitis

The time of disability resulting from thrombophlebitis has been reduced to a third by the repeated injection of the appropriate lumbar ganglia with 2 per cent novocaine solution. The procedure is so simple and the results so dramatic that it should always represent a first consideration of therapy after diagnosis has been made.

Summary and Conclusions

Some results have been reported following sympathectomy performed for disorders that exist because of pathologic neurophysiologic activities. In these conditions the curative value of sympathectomy depends entirely upon the diagnostic acumen of the operator and upon his understanding of the physiology involved. In many instances the effects of a permanent sympathectomy can be predicted by performing a temporary sympathectomy by injecting 2 per cent solution of novocaine. It is true, as it is true of all new surgical approaches, that sympathectomies have been performed for conditions for which no basis existed for such an operation, and hence good results were impossible. Nevertheless, the trial and error procedures have resulted in enriching the knowledge regarding proper indications. The day may not be far off when surgery for cancer will be considered barbarous; likewise the day may not be far off when sympathectomy which now represents the best therapy for certain conditions may no longer be indicated because of accrued knowledge. Until that time one must continue to deal with present problems with the best methods now available.

Sympathectomy is a useful surgical procedure, if used wisely for those conditions in which the underlying pathologic neurophysiology is well understood and in which the elimination of the sympathetic impulses is desirable.

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Urges thorough investigation of food poisoning outbreaks. Pointing out the vital importance of all outbreaks of food poisoning, *The Journal of the American Medical Association* for April 3, 1943, says that medical schools and other scientific organizations should bring to the attention of physicians the necessity for insisting on thorough investigations of food poisoning outbreaks and not accept perfunctory explanations with regard to their cause. *The Journal* says:

"During the present mobilization the incidence of food poisoning in U. S. Army troops is much less than that being experienced by other armed forces engaged in the present conflict. However, many food poisoning outbreaks are due to (1) carelessness in the handling of sanitation involved in the processing or serving of food and (2) the presence of unrecognized human carriers of enteric pathogens in the permanent food handler group.

"The Army has focused the attention of medical officers and personnel involved in the operation of all messes on the necessity of protecting food adequately from contamination by processing and serving under sanitary conditions and by preventing undue retention of food that may be potentially contaminated prior to its being served. Laboratory facilities have been made available for the investigation of these outbreaks when they occur, and every effort is being made to determine their source.

"In general, food as delivered by the manufacturer or wholesaler for processing in army kitchens has not been found to be an important factor in the cause of these outbreaks. Most of the outbreaks that have occurred have been due to the fact that foods such as potato salad, ground meat and sliced ham have been processed too long in advance of serving or have been stored under conditions favoring bacterial growth. Those outbreaks that have not been satisfactorily worked out with regard to the cause and the source of infection have in many instances been due to the fact that personnel involved have been convinced that physical factors or bacteria such as the staphylococcus were the only agents involved in the outbreak. Staphylococcus food poisoning does occur, and this type of infection is important as an etiologic agent of food poisoning. However, when mediocre bacteriology is done in connection with the investigation of the outbreaks the individuals conducting the investigation usually isolate a coccus which by gross methods of examination is identified as a staphylococcus. This finding, in conjunction with perfunctory examination for the Shigella and Salmonella organisms, leads to the conclusion that the outbreak is essentially staphylococcic in origin. These conclusions are not justified in many instances. The findings of more thorough examinations definitely proved that the outbreak itself was notdue to staphylococci but to Shigella or Salmonella.

"The detection of permanent food handling carriers of Shigella or Salmonella and their removal from this type of work definitely limit the possibilities of subsequent outbreaks. If the examination of the outbreak is perfunctory and staphylococci are blamed for the outbreak without adequate investigation for other possible organisms, corrective action will not be taken and the outbreaks will continue to occur. Medical schools and other scientific organizations should bring to the attention of physicians the necessity for insisting on thorough investigations of food poisoning outbreaks and not accept perfunctory explanations with regard to their cause."

THE USE AND THERAPEUTIC VALUE OF INTUBATION AND DECOMPRESSION WITH THE MILLER-ABBOTT DOUBLE LUMEN TUBE

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THE problem of acute intestinal obstruction, whether partial or complete, is of major importance because of the high mortality rate. To effectively lower this mortality rate requires early diagnosis of the nature of the obstruction, a comprehensive knowledge of the underlying principles of the resultant distention, an appraisal of the general condition of the patient, and a prompt use of valid methods to combat the condition.

For practical purposes intestinal obstruction is divisible into two main types, namely, paralytic ileus and mechanical occlusion. Paralytic ileus is a paralysis of the intestinal wall and frequently follows acute peritonitis or traumatic shock. Mechanical occlusion is commonly caused by strangulation, tumors, adhesions, or inflammatory changes in the intestinal wall. In either case distention of the bowel may be a marked feature, resulting in increased intraluminal pressure, decreased viability, increased permeability of the intestinal wall, and chemical imbalance involving water, electrolytes and serum proteins. In the strangulation type of obstruction there is the added factor of impairment of the blood and nerve supply to the bowel.

It is extremely important to determine whether one is dealing with a simple obstruction or strangulation. At times this may be difficult. In simple obstruction the patient is apt to have slowly developing intermittent attacks of slight colicky pain accompanied by audible peristaltic rushes and visible peristaltic movements. Between attacks the patient is relatively comfortable. When strangulation exists, the character of the onset is of major importance. The sudden onset of intense and continuous pain punctuated by colic, vomiting and shock denotes a catastrophe and is evidence of progressive intestinal necrosis. It may be unequivocally stated that once the diagnosis of strangulation is made surgery must be resorted to without further delay. On the other hand, in cases of simple obstruction as evidenced by clinical signs, symptoms, and X-ray scout films of the abdomen, the use of nonsurgical methods of decompression of the gut proximal to the site of the obstruction is a valid form of therapy. Prior to decompression by intubation the mortality for nonstrangulated cases was approximately 30 per cent or more, but since the utilization of this method has become appreciated and employed, the mortality has decreased 10 per cent or less. Many surgeons have made the observation that if distention can be prevented or relieved, then simple organic obstruction does not constitute a surgical emergency, and if satisfactory decompression of the intestinal tract is obtained many of the early postoperative obstructions will be relieved permanently.

In 1933, Wangensteen and Paine[1] demonstrated the therapeutic value of gastroduodenal drainage in tiding some patients over an episode of acute obstruction and as a preoperative procedure for others. By this method there has been an appreciable reduction in mortality, but they point out the fact that gastroduodenal drainage alone has two defects: (1) the faulty principle involved of aspirating from the upper rather than the lower portion of the obstructed bowel; and (2) the impossibility of feeding the patient while the gastric tube is in place. The earliest indication that these technical difficulties could be overcome and the mortality from acute obstruction further reduced, was in 1934 when Miller and Abbott[2] by using a terminal balloon on a double lumen tube were not only able to intubate the entire small bowel, but also to sample the contents at will from the stomach to the cecum. Later, observations[3] were made on the motor activity of the obstructed small intestine during the course of treatment by intubation. It was shown that peristalsis is first rendered more effective and then abolished by progressive distension, and that in the presence of mechanical obstruction a zone of absent peristalsis, preceded by a zone of hyperperistalsis extends progressively orad from the point of blockage. Until death of the muscularis results, this process is reversible. Thus, a patient who has been long obstructed and presents great distention of the abdomen with no audible peristalsis or one who has shown a paralytic ileus from the start may be intubated successfully because, as the stomach, the duodenum, and the subsequent sections of small bowel are deflated, each in turn regains its peristaltic activity and forces the balloon onward. As this takes place the patient experiences striking relief from pain and an abatement of his shock-like symptoms, the normal motor function of the intestine being at the same time restored.

The first important clinical use of intubation for decompression was reported by Abbott and Johnston[4] after a three-year experience with the method in the treatment of acute intestinal obstruction. Intubation was attempted on 16 individuals with failure in only 3. The patients were desperately ill and in 9 instances function returned spontaneously following a variable period of decompression. Paralytic ileus and organic obstructions responded in an essentially similar fashion. In not a few instances decompression alone released the obstruction, rendering operation unnecessary. Since that time the reduction in mortality that has attended the use of the Miller-Abbott tube or one of its modifications in the treatment of acute intestinal obstruction, is now a matter of record and intestinal intubation is regarded as an established clinical procedure. It has been employed in more than 500 instances in the clinic of the hospital of the University of Pennsylvania and to a lesser extent in a number of other institutions in this country and abroad. The results obtained in the management of intestinal obstruction seem to justify its inclusion among the procedures available in all large general hospitals.

Most of the published reports on intubation have dealt with its application in frank cases of obstruction, but Boon[5] demonstrated its further usefulness in localizing and identifying partially obstructing lesions by the injection of a thin barium sulfate solution through the tube.

Glenn and Faulkner[6] used intestinal decompression with the Miller-Abbott tube as an adjunct in the management of over 40 patients with intestinal obstruction, either mechanical or paralytic. About 25 per cent of these cases had primary gynecologic disorders of which the intestinal obstruction was a complication. The intestinal complication contributed more to the patient's discomfort and to the gravity of the prognosis than the original gynecologic disorder. Two cases with numerous complicating factors, thus demonstrating the widest range of application of intestinal intubation, were especially analyzed. The first case illustrated several advantages of preoperative intubation when it relieved all symptoms which were due to intestinal obstruction from bowel involved in a pelvic inflammatory disease. An immediate operation was safely delayed on a patient in poor condition, and, since the surgical procedure was made elective, satisfactory preliminary treatment of the pelvic disease was possible and the operation was technically simplified. The second case illustrated the value of intestinal intubation in postoperative complications of pelvic surgery. The tube produced the results of an enterostomy without the necessity of an operation.

In a published report from the Mayo Clinic[7] 166 cases of intestinal obstruction were encountered from August 1, 1938 to July 31, 1939, inclusive. There were 133 cases of simple obstruction and 33 cases of strangulation obstruction. In 39 cases of this series the Miller-Abbott tube was used for intubation, and it was found to be an invaluable agent in the treatment of obstructions of the small bowel and a helpful adjunct to the treatment of obstructions of the large bowel. Conservative decompression of strangulation obstructions had no place in the treatment with the possible exception of occasional cases of volvulus or intussusception prior to the development of gangrene. It is generally agreed that the early decision to employ intubation at the first sign of ileus and before toxic conditions arise may be a lifesaving precaution.

Description of Tube (Apparatus) and Technic of Intubation

For satisfactory intubation the most convenient apparatus now available is the standard Miller-Abbott double lumen tube (fig. 1), size 16 Fr., with balloon proximal to the perforated metal tip, and approximately 10 feet in length. The double channel principle allows aspiration or injection through the larger lumen and distention of the balloon through the smaller lumen.

A preliminary X-ray scout film of the abdomen should be taken in order to determine if possible the approximate site of the obstruction. The more patent nostril is sprayed with 2 per cent pontocaine solution to obtain shrinkage and anesthetization. The tip of the tube and deflated balloon are well lubricated with a water soluble jelly. The tube is then passed through the nostril to the oropharynx where passage down the esophagus is facilitated by the swallowing of small amounts of water. As the first mark on the tube (45 cm.) disappears, the tip enters the stomach, and suction through the Wangensteen apparatus is begun and maintained constantly. The patient is then turned on his right side in the semi-Fowler position and the tube fed slowly downward until the third mark (75 cm.) appears at the nose. Ten centimeters of air is injected by means of a calibrated glass syringe into the balloon and the tube clamped. The amount of air is later increased to 30 c.c. when the tip is in the duodenum. The patient then swallows 3 or 4 inches of tube every 15 or 20 minutes, and the progress is followed by fluoroscopic or X-ray observation at intervals. The aspirating tube may be kept clean by irrigating every one or two hours with warm physiologic saline solution.

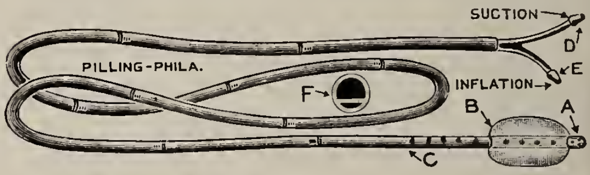

Fig. 1. Miller-Abbott double lumen tube (supplied by George P. Pilling and Son Co., Philadelphia, Pa.). A, perforated metal end and C, perforated distal end of tube which together represent suction part of channeled tube. B, thin-walled balloon inflated with air through proximal part of tube, E. F, cross section of tube with larger lumen for suction and smaller lumen for inflation.

The entire tube is 16 Fr. in diameter and approximately 10 feet long. Standard size.

The above-described method of intubation may be considered the standard "sinking" technic. If difficulty is encountered in passing the pylorus, an alternate method of "floating" the tip into position may be employed. This is accomplished by emptying the stomach of all gas and injecting about 300 c.c. of water. The balloon is then inflated with 30 or 40 c.c. of air and the patient is turned on his left side and the tip is then "floated" through the pylorus. Evidence that the tube has passed the pylorus is the demonstration of a sense of rhythmically recurring resistance felt in the glass syringe leading to the balloon. Another indication of the tube having entered the duodenum may be exhibited by observing rhythmic water manometric changes in balloon pressure taken from the tube leading to the inflated balloon, which is an indication of duodenal motility. When in doubt as to the location of the tip, the only certain method of determining its location is by radiography, i.e., fluoroscopy or X-ray film.

After the tube passes the pylorus, clear fluids may be given by mouth, and in about 12 hours soft foods may be allowed. At any time during the passage of the tube down the small intestine its progress may be halted by deflating the balloon and anchoring the tube to the nose with adhesive. The indication for removal of the tube is the passage of gas and fecal material through the rectum. Withdrawal of the tube is easy and may be accomplished at the rate of about 1 foot every 10 minutes.

NUTRITIONAL AND ELECTROLYTE BALANCE

It has been observed repeatedly[8, 9] that the successful maintenance of an obstructed patient depends on a reasonably accurate estimation of his needs in terms of fluid, electrolytes, and plasma protein almost from hour to hour at the start.

Intubation permits such determinations because it allows one to measure exactly the fluid loss from the body into the intestine, heretofore impossible, and since the salt content of such fluid is approximately that of the blood plasma, one may, making adjustments for the fluid taken by mouth, estimate roughly the sodium chloride needs.

Abbott[9] has pointed out that although intubation relieves local inflammation by sustained compression of the proximal segment, the anatomic change is unaltered. However, by bringing the metabolic state into balance the hypoproteinemic edema is decreased by improved nutrition. It is not the electrolyte content of the blood but its protein content that holds fluid in the vessels. Therefore, when physiologic saline solution is given intravenously to the obstructed patient it should be borne in mind that it may accumulate as edema fluid and thereby make a partial obstruction complete. The initial injection of blood or plasma will usually prevent this complication. In addition, the salt intake should be estimated. Since each liter of saline contains 9 grams, 3 liters intravenously represent a salt intake far greater than one could long tolerate by mouth. To offset this excess salt the use of 5 per cent glucose solution intravenously in distilled water to make up the fluid intake becomes helpful. During intubation the salt loss from the intestine is approximately 10 grains for every 100 c.c. of drainage fluid and can be replaced by mouth on this basis.

The following may be considered a basic procedure to be employed with intubation to correct nutritional and electrolytic deficiency. It is agreed, however, that the particular problem of the obstruction as to its location, etc., may naturally call for a modification of this plan. It is desirable to have a preliminary estimation of blood chlorides and proteins together with a urinalysis. All fluid intake, urinary output, and tube drainage should be measured.

PLAN OF MANAGEMENT

First day.—The intravenous administration of 3 liters of fluid divided as follows: 500 c.c. each of normal saline (4.5 grams of salt) and citrated blood or plasma; 6 hours later 1,000 c.c. of 5 per cent glucose in saline (representing 50 grams of glucose, 200 calories, and 4.5 grams of salt), the latter to be repeated in 6 or 8 hours.

Second day.—The intravenous administration of 3 liters of fluid divided as follows: 1,000 c.c. of 5 per cent glucose in saline, to be repeated once in 6 hours; about 8 hours later 1,000 c.c. of 5 per cent glucose in distilled water.

Third day and thereafter.—Five small feedings daily may be given by mouth to total approximately 1,500 calories. This food should be of a low-residue type and may be selected from the following list: rare beef, lamb, eggs, soup, cheese, rice, melba toast, jellies, custards, junket, fruit albumen, tea, coffee, sugar, butter, cream and puréed vegetables.

In addition, the supplemental use of poorly stored vitamins may be administered daily as follows: thiamin chloride, 10–20 mg., ascorbic acid, 100–200 mg., and nicotinic acid, 100 mg.

ILLUSTRATIVE CASE

The patient, K. W., a 40-year-old white woman was admitted to Emergency Hospital on the evening of November 25, 1942, complaining of intermittent attacks of colicky abdominal pain with distention, nausea and vomiting. Her general health had been good until 24 hours before admission to the hospital, at which time she developed epigastric pain lasting several hours. She then retired and slept well until 4:00 a.m. the following morning, when she was awakened with severe upper abdominal pain and distention. An enema proved ineffectual. However, she became more comfortable for a few hours when she again developed considerable distention, pressure discomfort in the abdomen, and later nausea and vomiting. This continued until her admission to the hospital.

The past history revealed that in 1922 an exploratory laparotomy was done for lower abdominal pain. At operation the left tube and ovary, uterus, and sigmoid were bound down by adhesions in the left pelvis. The operation consisted of freeing of adhesions, appendectomy, and Baldy-Webster shortening of the round ligaments. On the postoperative tenth day she developed clinical signs of marked intestinal obstruction, and it seemed almost certain that a second operation would have to be performed. However, she suddenly began to pass flatus and feces, the marked vomiting ceased, and she went on to recovery without further surgery. She then had relatively good health except for occasional attacks of vague abdominal pain and diarrhea. The rest of the past history and family history were noncontributory.

Physical examination revealed a well developed, well nourished white female not acutely ill. The temperature, pulse, respirations, blood pressure, heart and lungs were normal. The abdomen was moderately distended, somewhat tense but not rigid, tympanitic throughout, and intermittent peristaltic rushes were audible without visible peristaltic movement. A complete hemogram and urinalysis were negative. The Roentgen findings (fig. 2) were as follows: "X-ray films of the abdomen in the prone and upright positions show several distended loops of small bowel with fluid levels present. The findings represent a small bowel obstruction."

For 2 days the patient exhibited evidence of partial mechanical intestinal obstruction with intermittent attacks of moderate colicky abdominal pain, distention, and the passage of a small amount of flatus.

On the third day after admission to the hospital the patient was intubated with the Miller-Abbott tube and liquids were given by mouth as the tube went down the intestine. Twelve hours later an X-ray film of the abdomen (fig. 3) revealed the tip of the tube to be through the pylorus and in the small bowel. Six hours later a film (fig. 4) showed further progress of the tube. Twenty-four hours later the tip of the tube had nearly reached the ileocecal valve (fig. 5). During this time decompression was continuous, the obstructive symptoms were relieved, and the patient brought into metabolic balance by administering fluid and food by mouth.

The passage of the tube to the point of obstruction converted a situation calling for emergency surgery to one in which the time of operation then became a matter of election.

On December 1, 1942, 48 hours after intubation an exploratory laparotomy was performed by Dr. Charles Stanley White. A midline suprapubic incision was made. Many omental adhesions to the parietal peritoneum were freed. The small intestines were matted together in the right lower quadrant and into the pelvis by dense, filmy adhesions. These were liberated. A chocolate cyst of the right ovary (2½ inches in diameter) and the right Fallopian tube were resected. An endometrioma of the left ovary was noted, and the left ovary and tube were consequently resected. The usual broad ligament repairs were made. The inlying Miller-Abbott tube was followed downward and was found to have reached approximately 2 feet from the ileocecal valve. The intestines were not distended. At this point a definite band of omentum and other dense adhesions were creating an obstruction of the small intestine. Apparently the tube could not or had not been able to pass this point because the obstruction was quite complete. Adhesions were liberated and the abdominal wound was closed in the usual manner without drainage.

The pathologic examination revealed both Fallopian tubes to be of average size and shape. One ovary was small and cystic and contained a corpus luteum. The other ovary was practically replaced by a large cyst filled with hemorrhagic material. Microscopically, sections of the large hemorrhagic cyst showed a lining of compressed epithelium and in the wall of each Fallopian tube there was an occasional gland beneath the peritoneum lined by cylindrical epithelium which represented an endometriosis.

Postoperatively, intubation was continued and on the second day a small amount of flatus was passed. There

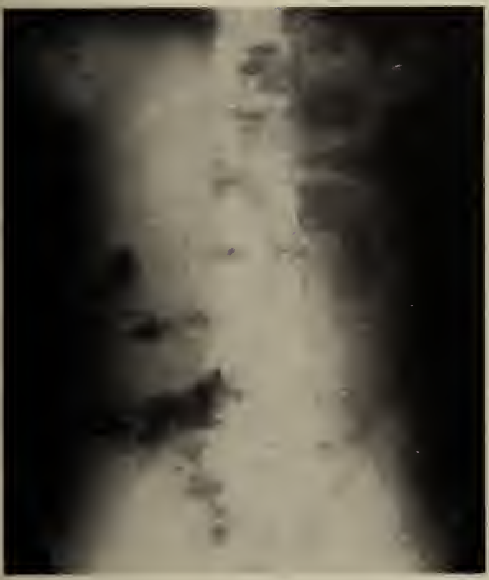

FIG. 2. Showing numerous distended loops of small bowel with fluid levels present, representing small bowel obstruction before intubation (upright position).

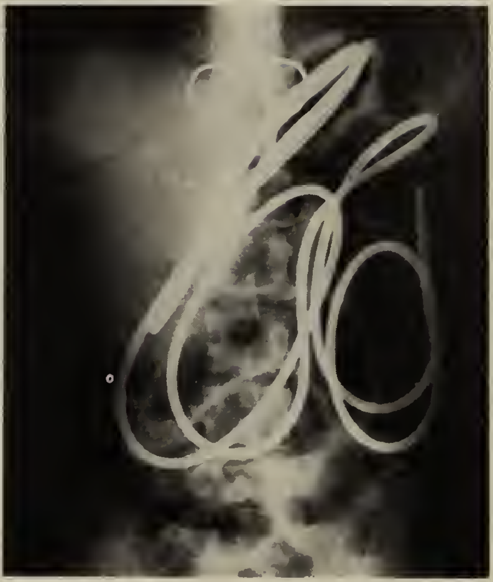

FIG. 4. Twelve hours after intubation the tip of the tube has advanced further into the small intestine. There are still distended loops of small bowel with fluid levels but not as marked as at the examination made 6 hours earlier.

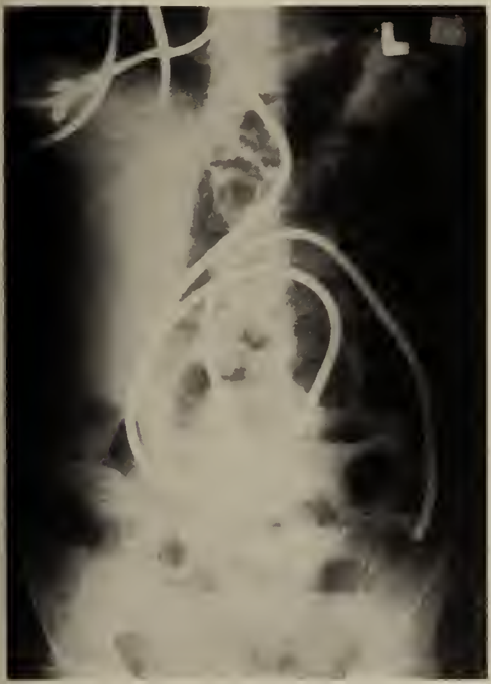

FIG. 3. Six hours after intubation the Miller-Abbott tube has passed through the pylorus and into the small bowel with the tip near the crest of the ileum (upright position). Multiple fluid levels are present indicating that the intestinal obstruction persists.

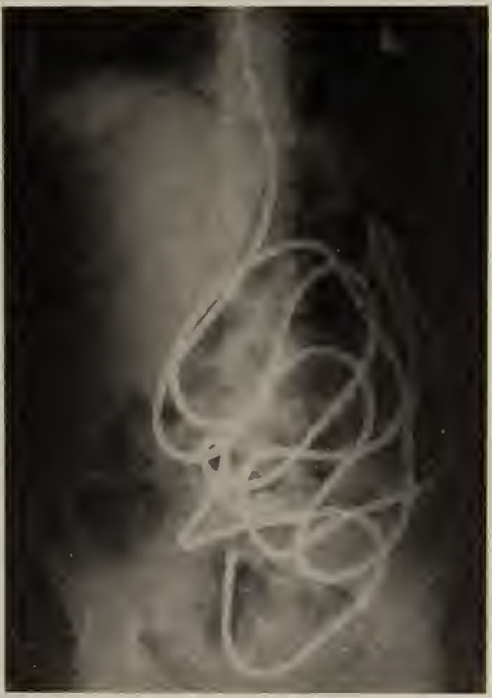

FIG. 5. Eighteen hours after intubation the tip of the opaque tube is located on the right side of the pelvis near the crest of the ileum, apparently near the ileocecal valve (upright position). While there are some dilated loops of bowel the obstruction appears to have been relieved.

was no abdominal distention or pain, and the tube was withdrawn to the jejunum where the tube leading to the balloon was connected with a Marey tambour and a graph made of the intestinal motility (fig. 6).

The tube was then entirely withdrawn after accomplishing its purpose of decompression and the restoration of normal peristalsis.

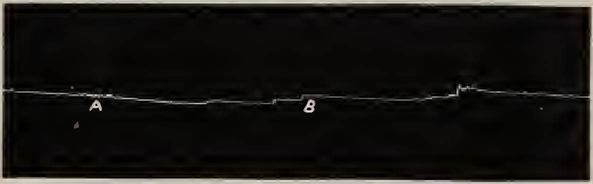

Fig. 6. Kymogram of jejunal action showing, A, rhythmical segmenting movements and, B, more prolonged tonus changes due to peristalsis(30 c.c. of air in balloon).

Conclusion

Intestinal intubation with the Miller-Abbott tube for intestinal obstruction is an established clinical procedure. When employed in non-strangulation obstructions it may be utilized advantageously[8] from the time of the patient's hospital admission to the time of his convalescence, and, considered in chronologic order, its beneficial effects include the possibilities: (a) of emptying the intestine and restoring peristalsis, (b) of supplying data promptly for the adjustment of the fluid and electrolyte balances of the body, (c) of relieving the obstruction itself, (d) of identifying the location and nature of the lesion, (e) of simplifying the technic of any required surgical procedure, (f) of protecting the suture line after operation, and (g) of converting an emergency to an elective surgical procedure.

I wish to thank Drs. Alexander B. Moore and James E. Wissler of Emergency Hospital for their willing coöperation in radiography; and Drs. Reginald A. Cutting and Walter H. Johnson of the Department of Physiology at the Georgetown University School of Medicine for providing the apparatus and help in obtaining the record of the intestinal movements.

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A complication resulting from blast injures in war is reported in *The Journal of the American Medical Association* for February 27, 1943, by Lieut. Comdr. Walter D. Abbott, Lieut. (j.g.) Floyd O. Due and Lieut. (j.g.) William A. Nosik, M. C., U. S. N. R. Their report concerns what they term "subdural hematoma and effusion as a result of blast injuries." It involves the formation of a hematoma beneath the dura or the effusion or escape of cerebrospinal fluid into the space.

"Subdural hematoma," they say, "is not an uncommon complication of craniocerebral trauma, usually the result of a direct blow to the skull, varying in degree and intensity. It has been shown that the hematoma occurs following the rupture of small veins, either between the layers of the dura or between the inner surface of the dura and the arachnoid. . . .

"We have observed a number of blast injuries sustained in action. They are the result of injury by a nearby exploding bomb on ship or land or may be the result of a concussion wave subsequent to a sinking ship or a depth bomb while the patient is in the water. . . .

"It is our opinion that in some instances in which there is no direct blow, a severe concussion from a bomb explosion at variable distance away, will lead to either a small subdural hemorrhage or a sudden rent in the arachnoid, permitting a temporary escape of the cerebrospinal fluid into the subdural space. . . .

"The patients present a history of exposure to severe concussion, loss of consciousness for a period varying from a few minutes to several days, persistent headaches, memory loss and irritability. It is seldom that many positive neurologic signs are present, and what few are evident, are not pronounced. The most common findings are a slight facial palsy, a transient hemiparesis and occasionally a transient change in reflexes. . . ."

The three men say that when such a condition is suspected an X-ray study of the brain should be made and if a hematoma or effusion is present a drainage operation should be performed to relieve the condition.

MENINGITIS CAUSED BY BACILLUS PRODIGIOSUS

Report of a Case

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REVIEW of the literature reveals only 1 previous instance of disease in which Bacillus prodigiosus (Serratia marcescens) was indicated as an etiologic agent. In that instance Bacillus prodigiosus was recovered from the sputum of a patient with pneumonia.[1] The present report deals with what is considered to be the first case of meningitis proven to be caused by the Bacillus prodigiosus, an organism heretofore considered as nonpathogenic. I believe the report is warranted because of the widespread use of this organism for routine bacteriologic study and experimentation.

REPORT OF A CASE

C. A. W., a colored male, aged 21 years, was admitted to the hospital complaining of severe headache and nausea of 48 hours' duration. The onset was acute. The first symptom, that of malaise, had preceded the headache and nausea by only a few hours. These complaints, which were mild at first, had become progressively more severe up to the time of admission. The patient's occupation prior to induction into the Army was that of a farmer. His family history was irrelevant. The previous personal history elicited that antiluetic treatment, of undetermined degree, had been given in 1937. In July, 1941 a lumbar puncture had been done during the course of antiluetic therapy as a routine diagnostic procedure. The spinal fluid at that time showed 3 cells per cu. mm., no increase in globulin, a positive Wassermann reaction, and a colloidal gold curve of the paretic type (54422-11000). Specific therapy was continued, and on February 14, 1942 another lumbar puncture was performed. This spinal fluid revealed no essential change from that of the one 7 months prior. On February 17, 1942, 3 days after the last lumbar puncture, the patient was admitted with the above-mentioned complaints.

Physical examination revealed the skin to be hot and moist. The temperature was 102°F., the pulse rate was 100 per minute, and the respiratory rate 24 per minute. The general appearance was that of a well developed and well nourished man, who was not seriously ill, and who showed no evidence of mental clouding. There was nuchal rigidity, grade 3 (basis of 4). The ocular fundi were negative. The extra-ocular movements were normal. There was no glandular adenopathy. The thyroid was not palpable. The nasopharynx showed moderate redness and congestion. Examination of the chest revealed the lung fields to be essentially clear. The heart was normal in size, shape, position, rate and rhythm, and there were no murmurs noted in any area. The blood pressure was 120 systolic and 80 diastolic in both arms. Examination of the abdomen revealed no areas of tenderness or rigidity, and there were no palpable masses. The external genitalia were normal. The patellar reflexes were slightly hyperactive bilaterally, the remainder of the neurologic examination being considered physiologic.

Examination of the blood revealed 4,500,000 red blood cells per cu. mm. of blood and 90 per cent hemoglobin; the white blood cells numbered 11,400, with 70 per cent polymorphonuclears, 5 per cent young forms, and 25 per cent lymphocytes. Urinalysis was normal. Lumbar puncture, done on admission, revealed the spinal fluid to be under moderately increased pressure and containing 2,100 white blood cells with 92 per cent polymorphonuclears and 8 lymphocytes. There was no pellicle formation. Globulin was positive. Fifty mg. of sugar per 100 c.c. of fluid was found. Smear of this fluid showed the cells to be markedly degenerated, and coarse basophilic granules were noted. No bacteria were seen on direct smear. Culture of the spinal fluid was done. After a blood culture had been taken, sulfapyridine therapy was instituted by mouth. The dosage of sulfapyridine consisted of 4 grams at once, followed in 2 hours by 2 grams, then 1 gram every 4 hours. The blood culture was subsequently reported as being sterile.

The patient was relieved of the headache by the spinal tap. The temperature started to decline, and in 18 hours it had returned to normal. The pulse rate throughout was in proportion to the temperature. Eighteen hours following the spinal tap, the spinal fluid culture revealed a profuse growth, which, on further bacteriologic study, proved to be a pure culture of Bacillus prodigiosus. This culture was then inoculated into a series of mice, all of which died within a few hours and from which the Bacillus prodigiosus was retrieved from the heart blood, spleen and peritoneal fluid. Another lumbar puncture was done 24 hours later, the fluid from which also produced a pure culture of the Bacillus prodigiosus and which, upon inoculation into mice, caused the death of the animals. From this second series of animals the Bacillus prodigiosus was also obtained in pure culture. Meticulous study from the bacteriologic standpoint proved in every detail that the infecting organism was Bacillus prodigiosus. The details of this bacteriologic study form the basis of another report.[2]

The temperature, having returned to normal 18 hours after admission, remained normal throughout the stay in the hospital. The nuchal rigidity disappeared in 24 hours, and it was noted that both subjectively and objectively the patient was practically well 72 hours from admission. Blood concentration of sulfapyridine reached 6 mg. per cent, the concentration in the spinal fluid attaining 1 mg. per cent. The third lumbar puncture, done on the 11th hospital day, revealed 25 cells per cu. mm. with 30 per cent polymorphonuclears and 70 per cent lymphocytes. Bacteriologic study proved this specimen to be sterile. The patient was later discharged with no evidence of complications or sequelae.

COMMENT

Bacillus prodigiosus (S. marcescens) can no longer be considered as absolutely nonpathogenic. At least, it can be stated that certain strains of this organism are capable of producing disease as evidenced by the case herein reported and by the 1 previously reported. Whether or not sulfapyridine had any beneficial effect on the outcome in this case remains only conjecture, but the apparent clinical response to the institution of this drug would strongly suggest that such was the case.

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Issue special warning report on new type of an eye disease. A special warning bulletin on epidemic keratoconjunctivitis (the eye disease of shipyard workers now sweeping the country), published with the approval of the Council on Industrial Health of the American Medical Association, is contained in the April 3, 1943, issue of *The Journal* of the Association. The report is issued jointly by the U. S. Public Health Service and the Committee on Industrial Ophthalmology of the Section on Ophthalmology of the American Medical Association. It points out that the disease has appeared so extensively throughout the country that it is hoped that physicians everywhere will be prepared to apply the recommendations listed in the report promptly and effectively.

Among the points brought out in the report is that the incubation period of the disease ranges from five to ten days and that the onset may be preceded by a low fever and mild generalized discomfort or distress. The local symptoms are merely those of a foreign body in the eye or an irritation of the conjunctiva. One eye is usually affected first and in a large percentage of cases the second eye becomes infected within five to eight days. The disease is self limited, in a majority of instances the inflammation disappearing spontaneously in fourteen to eighteen days. There is no specific treatment that has shown a definite influence on the course of the disease. During the acute stage the eye should be kept clean by means of irrigations.

"It is not yet known," the report says, "how long the danger of transmission to others exists. At present for practical purposes a sufferer from . . . [the disease] may be allowed to return to work when the active conjunctivitis has disappeared.

At present the only preventive measure known is complete isolation of infected persons. . . . The infected individual must be told of the danger of transmission of this disease to others, not only in the plant, but even in the home surroundings. . . .

The report suggests that in industrial plants in which the disease makes its appearance the following methods of procedure be adopted:

In smaller plants with a limited personnel, every one with a red eye should be stopped at the entrance of the plant and sent directly to the plant physician to determine whether or not the disease is present. In larger plants foremen or supervisors should make rounds immediately after a fresh shift starts and send any one with a red eye to the medical office.

Every patient with the disease should be excluded from the communal facilities until the inflammation has subsided to the point where the plant physician considers it no longer transmissible.

Every individual should receive specific instructions regarding the disease with emphasis on the decrease in the war effort as a result of the time lost from the disease.

Local health authorities should be notified immediately of the existence of individual cases.

CRANIAL AND ABDOMINAL MIGRAINE

Report of a Case

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THE chain of symptoms which lead to the usual diagnosis of migraine or hemicrania is rather well established. However, cranial migraine accompanied by unusual abdominal symptoms, chief of which is pain, has been sparingly discussed in the literature. In the Bruce translation of Oppenheim's textbook[1] of nervous diseases, published as late as 1911, no mention is made of abdominal migraine. A more modern textbook, Wechsler's third edition[2] of 1935, does speak of an abdominal form of migraine. Brams,[3] in 1922, writing under the title "Abdominal Migraine," is one of the first to have publicized the possible connection between cephalic and abdominal pains of periodic nature. Our paper deals with certain of the aspects of the clinical picture of abdominal migraine and cranial migraine, with special reference to the abdominal symptoms in the case to be reported. Certain results in the treatment of hemicrania have been reported before the Cushing Society by Watts and Groh, and follow-ups and additions to these results will be presented before this group at a later date.

In Bram's original paper on abdominal migraine, he stressed the close correlation between certain forms of periodic epigastralgia and head migraine, expressing the opinion that abdominal migraine occurs chiefly in "those who suffer from typical head migraine, or when there is a history of this disease in the family," or in individuals in whom epigastralgia in periodic form was "distinctly a temporary and vicarious substitute for the usual form of head migraine." He reported 22 cases in which organic disorder of the nervous system or abdomen had been excluded by careful examination. These individuals suffered periodic pain, usually epigastric, and were symptom-free between attacks. A family or personal history of migraine was always present. Brams classified abdominal migraine in 3 forms: (1) with epigastralgia accompanied by head migraine, or as the only symptom of migraine disease; (2) a vicarious type in which typical head migraine existed, disappeared, was supplanted by abdominal migraine, and then often the cephalic migraine again supplanted the abdominal migraine; and (3) a larval or irregular form in which the epigastralgia was less marked but the attacks consisted of much vomiting. In his series of cases, the attacks of abdominal migraine usually occurred about every 4 to 6 weeks, lasting from 3 to 4 days with an abrupt ending. Most of the cases were in women. The attack consisted usually of a severe, cutting or boring epigastralgia, independent of and uninfluenced by food, radiating into any portion of the abdomen. Vomiting was marked, with no influence on the pain. Constipation was common, but diarrhea occurred at times. There were no signs of infection. Anorexia and nausea were frequent during the attacks. No organic neurologic findings were present, although the individuals usually showed a neurotic constitution. The so-called vicarious group usually occurred at the time of the menopause, the cranial migraine having been present during earlier life. This led to the feeling that some endocrine imbalance was responsible, and endocrine therapy was undertaken without much success.

In a second communication in 1926, Blitzsten and Brams[4] reported 10 cases of "migraine with abdominal equivalent." In these individuals typical cephalic migrainous attacks were present in association with, or later supplanted by abdominal pain in various regions of the abdomen, mostly in the epigastrium, and frequently associated with nausea and vomiting. Five of these patients had had abdominal operations, with failure to discover any localized organic pathology. In these operative cases slight abdominal tenderness probably led the surgeon to his exploration. These authors felt that the prognosis in the various cases was comparable to that of uncomplicated cranial migraine, and they all seemed to show improvement under antimigrainous treatment, usually cannabis medication. Isolated cases of similar findings and symptoms have been reported by Rossbach,[5] Schmidt,[6] Bary,[7] Bordoni,[8] and others. Finney,[9] in 1922, described 1 very typical case exhaustively studied, characterized by abdominal pain of a cutting character in the epigastric region, relieved only by morphine. Laparotomy was negative, and belladonna gave no relief.

Concerning the mechanism of pain in the abdomen, much has been written concerning the autonomic visceral innervation, and the latest knowledge was summarized at the 1942 meeting of the Association for Research in Nervous and Mental Diseases. The pain from extraperitoneal structures is carried over the somatic sensory fibers to the posterior columns of the spinal cord. Noxious stimuli to intraperitoneal structures excite pain mediated over the autonomic nervous system, either the vagi or the sympathetic, particularly the splanchnics and the ganglia of the lumbar and sacral sympathetic chain. Buch,[10] in 1901, discussed at great length the mechanism of epigastric pain and by a series of deductions concluded that the sympathetic system is the carrier of "neuralgic" pain of the gastrointestinal tract. He quoted Autenrieth's interesting commentaries on the symptoms of "coeliac neuralgia," making the following statement: "The patients perceive suddenly in the pit of the stomach, under the ensiform process, a violent pain which they describe as burning, tearing, oppressing, as if a glowing coal lay there or as if the part were being violently wrenched asunder, which pain is often so intense that strong persons become almost raving, while weaker ones fall in a faint." Romberg in his description of coeliac neuralgia described the illness as follows: "Abruptly, or after a preceding sensation of apprehension, there occurs a violently constricting pain in the pit of the stomach, usually diffusing to the back, with a sensation of fainting, coldness of the hands and feet, and weak intermittent pulse. It seems to me that the sensation of fainting accompanying the pain, the threatening annihilation of life . . . . in the whole habitus of the patient, is the pathognomonic feature of coeliac neuralgia".

Buch quoted Henoch as supporting this contention that the sensation of syncope is pathognomonic of coeliac neuralgia. Buch contributed some personal data describing "cases of nerve disorders which are connected with painful or otherwise abnormal sensitivity in the abdominal cavity" and showed hyperesthesia of the sympathetic nerves, the sympathetic chain not being sensitive to pressure in the normal subject. He believed that the irritative conditions of the sympathetic produce changes in all of the functions of the sympathetic, bringing about disturbances of many kinds, including vomiting, pyrosis, neuralgic pains throughout the body, hemicrania, diarrhea, etc. He concluded that pain of the sympathetic system is distinguished by a tendency to reflex irritation and reflex radiation.

White and Smithwick[11] in their excellent monograph on the autonomic nervous system discussed fully the mediation of pain over the autonomic nerves of the various abdominal organs. Various diseases of the viscera with chronic long-standing pain in which exploratory operations yielded no relief have been treated by White and his co-workers through the medium of sympathectomy.

Archibald[12] in 1928, Scrimger[13] in 1929, and Alvarez[14] in 1931 described the relief of obscure abdominal pain by the use of sectioning sympathetic visceral nerves. White cited a case of this type with relief by resection of the ninth and tenth thoracic ganglia and a large segment of the major splanchnic nerve on the right. The patient was a high-strung emotional woman who developed stabbing attacks of right upper quadrant pain. She showed no abnormalities in any of the usual surgical diagnostic methods. Her pain was so severe as to lead to morphine addiction. Novocaine injections of the ninth, tenth and eleventh intercostal nerves did give relief of pain, and the subsequent operation was followed by complete disappearance of the pain over a period of 6 or 8 years. However, it is to be noted that this individual did not have headaches.

The question of allergic etiology of migraine and its various components could lead to a long and detailed discussion. Suffice to say, however, that there are definitely proven cases in which hemicrania and various abdominal complaints have been successfully handled by the careful application of allergy technics, particularly by elimination of certain foods from the diet. The type of pain described by the allergists is not of the sharp, shooting, cutting, burning, sudden character of the pain of the autonomic nerve disorders. The dietary habits of our patient were gone into quite carefully and there never had been an attack of pain in association with any particular food intake.

REPORT OF CASE

E. B., a white female of 32 years, a Government worker, was seen for the first time in October, 1941 with the complaint of severe, deep-seated, boring, throbbing headache, located over the right side of the head. These headaches had been present since the age of 13 and occurred regularly at every menstrual period, necessitating bed rest for from 1 to 2 days. Between menses, the headaches would come several times, each attack lasting at least 1 day. They had recently been more frequent, necessitating 4 to 6 days in bed every month. The headaches came on after "a sense of a veil over my eyes"; there were colored spots before the eyes, and occasionally there was dizziness, and frequently nausea and vomiting. The ache would usually begin just anterior to the ear on the right side and extend up over the entire right side of the head. Severe headaches caused the tongue and the right side of her neck to hurt. Cold sweat developed frequently during the height of the attack. There was usually marked photophobia. The headaches would come on especially after fatigue or emotional stress or when riding in an open car with the wind blowing on the right side of the face. A strong emotional component was present, it being necessary for the girl to help support her mother and father amid the trials and tribulations of being an only child. Her father and 2 of her father's sisters have suffered from these same types of unilateral headaches. Not much was said at the first examination concerning abdominal complaint, but it ultimately came out that she had been having such complaints for a number of years.

Our quickening interest in the relief of headaches by attack on the extracranial arteries led to the infiltration of novocaine about the right superficial temporal artery during an attack of headache. The patient was completely relieved of pain over the temporal region on the right side of the head, but some pain remained over the right supraorbital and right occipital regions. Subsequent infiltration of novocaine about these scalp arteries gave the patient complete relief of headache with disappearance of photophobia, weakness, nausea, and sense of bodily cold. Segments of the right superficial temporal, the right occipital, and the right supraorbital arteries were removed in succeeding operations. It is of interest to note that after removal of the temporal artery the pain was located only over the eye and in the occipital region, both of which areas of pain were completely relieved by infiltration of novocaine around these 2 arteries. After the occipital artery was removed the pain was present only above the right eye, and this pain was relieved by novocaine infiltration about that artery. Since the completion of this series of operations early in 1942, the patient has had no recurrences of her incapacitating, deep-seated, boring headaches.

After relief of the right-sided hemicrania, the patient was left with a marked hyperacusis of the right ear, which on careful recheck of the history was found to have been present all of her life but was apparently drowned in the past 3 or 4 years by the increase in intensity of her hemicrania. Over many years as an orchestra pianist she would always have to have her piano in such position that her right side was toward the audience, otherwise the blaring of the orchestral pieces caused a distinct sense of pain in the right ear. This hyperacusis was not of sufficient degree, however, to warrant a drastic attack, although right cervical sympathetic block with novocaine allowed us to bang metal basins close to her ear without discomfort.

The abdominal pain has been of 2 kinds. The one kind was the usual cramplike soreness coming in attacks in the right lower quadrant over a period of 7 years, relieved by appendectomy at the age of 19. Over the past 10 years or more the patient suffered from a severe aching in the right side of her entire trunk, which was accompanied by extreme weakness. The pain was of a pinching, deep-seated, aching character, with a sense of cold "as if I were congealing." The pain was not associated with the headaches, but if severe enough, she would become nauseated. During the past year the pain in the abdomen had led to incapacitation on several occasions, requiring bed rest. In 1940 an abdominal operation was performed with the preoperative diagnosis of adhesions in the right side. A few minor adhesions were found, but the symptoms continued. The patient described the pain at the time of this abdominal operation as the aching pain mentioned above. During the past year, she had had gastrointestinal X-ray examination, a uterine dilatation and curettage in September of 1940, and complete urologic studies with intravenous pyelograms. All of these studies revealed no evidences of pathology. Occasionally an attack of pain was accompanied by hematuria in 1 or at the most 2 specimens of urine. The neurologic examination showed no clinical evidences of involvement of the nervous system and X-ray films of the spine and spinal fluid findings were normal.

The abdominal pain seemed to increase in intensity following the relief from headaches. The abdominal pain would come on suddenly. A sense of cold would develop. Frequently she would have to stop in her tracks, the pain was so severe. These symptoms gradually increased in intensity, the pain occurring once or twice a week, until by May of 1942 the severity of the pain was sufficient to cause fainting, and on several occasions she tumbled in a faint down a flight of stone steps such as those of the Treasury Building. The pain would last for 1 or 2 hours, during which time she would be forced to lie down. During all of these attacks, sensation over the right side of the trunk was completely normal. Exquisite tenderness was elicited on the slightest pressure over the right flank. The right flank seemed to be the center of acuteness of the pain. There was never any muscle rigidity over the abdominal cavity. The pains did not extend down the legs, nor did they radiate into the genitalia. There were never any bladder or bowel disturbances during the attacks. There were no convulsive movements. There was no evidence of change in circulation in the right leg as compared to the left. The condition became so severe that the patient was ready to give up her job, a job for which she was well adapted and in which she was most productive. She had been forced to give up her music and her church work.

By the process of elimination, namely, that the skin and muscles seemed normal, the spine was negative, the clinical neurologic examination was normal, the abdominal viscera were normal, and there were no evident changes in the circulation, it seemed that the sympathetic chain might be involved. A lumbar sympathetic block with novocaine was performed on the right side during an attack of pain. To everyone's happy satisfaction, the pain was completely relieved by this procedure. She was allowed to go on until the pain recurred, and this in turn was again relieved by lumbar sympathetic block on the right side. Therefore, on June 27, 1942, a right lumbar sympathectomy was performed with removal of the first 4 lumbar sympathetic ganglia. The usual postoperative picture of increased temperature with a heightened color of the entire right leg plus anhidrosis was produced. Since this operation, the patient has had no abdominal pain. On several occasions, she has had an attack described as "weakness" with sweating of 15 to 20 minutes' duration, which at the present time has completely disappeared.

COMMENT

It would seem that this case falls into that group of individuals described by Brams as suffering from migraine with abdominal equivalent or abdominal migraine. The hereditary and personal history of hemicrania is present, in an individual who had also abdominal pain of a deep-seated, burning, aching character. This combination falls well into the definition of Lincoln Palmer,[15] who believes that the term abdominal migraine is correct so long as the patients have cephalalgia in addition to abdominal pain. The mechanism of pain in this case is not particularly clear. One might correlate the sudden stabs of pain of trigeminal neuralgia with the sudden pains in the right flank of this individual. By correlating a further point, Autenreith's description of sudden attacks of epigastralgia being indicative of "coeliac neuralgia" would lead one to think that here there is a neuralgia of the lumbar sympathetic trunk. From this 1 case, then, the conclusion might be that this abdominal migraine represents a form of sympathetic neuralgia located in the lower portion of the sympathetic chain. Since autonomic action is on smooth muscle, the mechanism may have to do, however, with sudden unexplained activity of the smooth muscles in the distribution of the removed sympathetic ganglia, with mediation of pain over these sympathetic nerves. Another concept concerns the smooth muscles of the blood vessels of the affected region. Since Leriché has shown that the pain of causalgia is abolished by sympathectomy, the concept has arisen that vasodilatation consequent upon the loss of vasomotor tone after sympathectomy is responsible for the absence of pain. In our case, however, there were no manifestations comparable to that of the typical causalgia of an extremity where the part is glossy and assumes a purplish tinge. In causalgia, also, the pain is more constant, although it has the qualities of burning, deep-seated, severe aching, such as we find in this individual.

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Industrial health and tuberculosis in industry are topics of great concern to all nations at war. Britain, the senior partner of the United Nations by length of service, was confronted much earlier than we were by problems arising from the conversion of peace economy to war production. The following are from recent British publications:

Information about tuberculous disease or previous treatment at a sanatorium or dispensary should be made compulsory for all persons entering industry. This is the practice at military boards and there appears no legitimate reason why this should not be incorporated into the civilian industrial life of the country. Such a measure would ensure the control of infection in the interests of the health of the community. Naturally, such a course will occasion opposition. It will be argued that this represents an encroachment on the freedom of the individual; however, freedom would be an intolerable institution if it permitted an individual indiscriminately to infect with disease his fellow creatures. Bertram Mann: Tubercle, March 1942.

Factors underlying the increasing incidence of tuberculosis are: the background of mental tension and anxiety due to the war which affects the population as a whole,—overwork, often associated with unaccustomed heavy work, with long hours—, usually with additional voluntary duties—resulting in marked fatigue, the increased exposure to infection from the large numbers absorbed in industry,—the overcrowding now prevailing, which must be regarded as an important factor in the spread of disease, especially when associated with "black-out" conditions and the lowered standard of nutrition associated with a restricted dietary. Sidney Deaner, Chief Tuberculosis Officer, Worcestershire County, England: J. Roy. Inst. Pub. Health & Hyg., October 1942.

Tuberculosis is coming to be regarded more and more as a disease of economics. Editorial: Tubercle, March 21, 1942.

President's Page

WE MUST BE VIGILANT

Many of you undoubtedly saw the statement issued by me to the press which appeared in local newspapers on April 2. As there may be a number who failed to see it, I have decided that its repetition on this page is justified.

"Concern has been expressed in the press recently over insanitary conditions in the District of Columbia. It has been stated that they constitute a threat to the health of the people of Washington.

"Inadequate sanitary facilities are, of course, a menace to the health of a community. I am sure the District Health Department is cognizant of this fact and is doing everything in its power to correct objectionable conditions which exist. Everyone interested in this matter is surely aware that construction of proper sanitary facilities on the scale which would be necessary would be extremely difficult if not impossible at this time because of priorities.

"I would like to direct attention to another phase of this situation and that relates to the coöperation which health officials have a right to expect from the public. If construction of sanitary facilities on the scale desired is not possible, the people of this community should redouble their efforts to be cleanly as regards their surroundings, as well as themselves. It is an important safeguard against disease.

"The health of the people of Washington has been unusually good considering potential dangers which now exist. Overcrowding, for example, is a hazard which we cannot avoid and against which protective measures must be taken. Every citizen should feel it his duty to be immunized or vaccinated against communicable and contagious diseases such as typhoid fever and smallpox. Many thousands have already taken advantage of these preventive procedures through their physicians and the District Health Department. Fatigue or excesses of any kind should be avoided. Doctors, too, must be alert for signs of disease.

"This brings up the matter of the supply of doctors in the District. Last September it was ascertained that there were enough doctors to care for the health needs of the civilian population in the District of Columbia. Six months have passed since this investigation, and many changes have taken place. Another study is now in progress in which the Committee on Medical Service for the District of Columbia, the United States Public Health Service, and the Procurement and Assignment Service are coöperating. In this survey the number of physicians in active practice will be determined; how many are able to carry on a full practice (it must be kept in mind that the younger men have been withdrawn for the armed services); what percentage of specialists will do general practice in an emergency; the patient load now being carried by private practitioners and the number of patients being refused by physicians who are overburdened; the distribution of physicians in the District; and how many physicians will volunteer for service in emergencies where patients do not have their own doctors. In other words, an effort is being made to obtain a complete picture of the medical situation and to ascertain the steps necessary to protect the public health.

"In this connection, mention might be made of the fact that many physicians are jeopardizing their health in an endeavor to meet all demands made upon them. They are working too many hours without enough rest. This situation can and must be remedied through better planning and the coöperation of the public and the medical profession.

"If we are all vigilant and work together, we should with good fortune maintain our excellent health record and escape epidemics even though ideal conditions do not exist."

Editorials

ANNUAL BUSINESS MEETING

What has the Society accomplished in the past year? Has it fulfilled its obligations to the medical profession and the people of this community? Has it done anything which directly benefited the individual medical practitioner? What consideration has been given its members in the armed services and the problems which will confront them after the war? Has it been cognizant of the trends in medical practice? If so, what has it done about them? How have its officers met their responsibilities?

The answers to these and many other questions will be given at the Annual Business Meeting to be held on May 5. At that time the officers, in accordance with the requirement of the Constitution and By-laws, will render an accounting of their stewardship in the past year.

Prior to the meeting, a printed report of the activities of the Society during 1942–1943 will be mailed to Active Members. This will obviate the necessity of reading most of the reports of boards and committees and will give members an opportunity to familiarize themselves in advance of action being taken upon them.

Although the election of officers will, as usual, be of special interest, the business of the Society will be equally deserving of serious attention. Too often members go to the Annual Business Meeting only for the purpose of voting for a candidate for office. Nothing else seems to matter. Fortunately or unfortunately, depending upon one's views, the election of officers does not come first in the order of business, otherwise there would undoubtedly be an exodus of "voters."

Reports may not be exciting to listen to, but they are the only means of conveying to members what they should know about matters with which officers constantly deal. If our members are sincerely concerned with the welfare of their profession during this uncertain period, they will seek to inform themselves and give all support possible.

A special program and buffet supper will follow the business session this year. The Program Committee will present as speaker a nationally known public official who has shown a deep interest in medicine. An announcement will be made by the Committee as soon as arrangements have been completed.

Members who have attended no other business meeting of the Society during the year should make it a point to be present on May 5.

MEDICINE'S OPPORTUNITY

Although the medical picture is at present somewhat confused, there are encouraging signs that the medical profession is becoming increasingly aware of impending changes and their probable effect upon the practice of medicine. Unfortunately this awakening does not bring with it the unity which in these times is so essential. Within the past month there have been two medical meetings, supposedly of national character, devoted to the discussion of medical problems—the National Conference on Medical Service held in Chicago on February 14, and the

National Conference on War and Postwar Medical Service held in New York on March 15. At both of these conferences, vigorous expression was given to the position which medicine should take as regards war and postwar medical practice.

The Chicago Conference adopted a resolution calling attention to the fact that "social and economic changes have altered the lives of our citizens" and that since "the Federal Government has found it necessary to issue directives from time to time, we as physicians believe that it is our duty to take a more active part in the creation of such regulations as affect the practice of medicine." The Conference urged "the immediate development of a stronger national economic and legislative policy governing the practice of medicine and that such a policy be integrated with each state and county." Finally, it was resolved "that the expression of this National Conference on Medical Service be submitted to the Board of Trustees of the American Medical Association, advising them that this resolution, or a similar one, will be submitted to the delegates of the American Medical Association at their next annual meeting."

Comments on the Conference have appeared in several medical journals, among them *Minnesota Medicine* for March 1943, which states:

> "Medical society officials all over the country are now awake to the fact that the old, comfortable, laissez-faire policy, punctuated by occasional routine blasts at the evils of state medicine, will no longer serve to protect American medicine. Nor will it keep pace with adjustments demanded by the changing times.
>
> "Evidence of this awakening was ample at the Chicago meeting of the National Conference on Medical Service. . . . Behind the excellent formal program was the intent of its sponsors to focus and give expression to a feeling that obviously animated all of them—a feeling that the time for pronunciamentos is over and the time for concerted action is here."
>
> "As a result, it is hoped, an era of realistic, practical public policy will eventually replace the inaction of the past, a policy which will take into account, on the one hand, expanding conceptions of social security and on the other, the necessity for immediate steps to guide all legislation and regulation impinging upon health and the medical care of the people.
>
> "History is made, these days, by directives from a bureaucrat's pen. It is only the part of wisdom and common sense that alert, forward-looking representatives of the medical profession should be at hand and in a position to offer counsel before, not after, such orders are signed and the regulations circulated.
>
> "That sort of coöperation with government agencies is not obstructive. On the contrary it represents the best type of constructive assistance which medicine can offer for the preservation of its own standards and for extension of the best possible service to all the sick."

The New York Conference's approach to medical problems was somewhat different. Outstanding scientists and physicians discussed diseases prevalent in the world today and their effect upon the health of our people. Consideration was given to such matters as drugs, materiel and medical personnel during the war and after. The climax of the day's program was an address by Dr. Morris Fishbein on "American Medicine's Contribution to the Postwar World." Dr. Fishbein warned against the regimentation of medicine in this country, calling attention to advances in scientific knowledge under the present system and the fact that our people are receiving the finest medical service in the world. He reminded his listeners of the low death rate in this country and the dangers inherent in any medical care program under lay control.

Sponsors of the New York Conference were the American Medical Association, American College of Physicians, American College of Surgeons, American Drug Manufacturers' Association, American Hospital Association, American Pharmaceutical Association, American Pharmaceutical Manufacturers' Association, American Surgical Trade Association, Wholesale Surgical Trade Association, and the National Physicians' Committee.

The last named organization has been very active in its opposition to any form of state controlled medicine. It has the endorsement of the House of Delegates of the American Medical Association.

The New York Conference came in for some criticism from the *New York Times*, which commented as follows:

"With the Army and Navy draining off about half of the physicians in practice, with the danger of epidemics looming in the medically depleted rural areas and in several hundred boom towns, with nurses difficult to obtain and crippled hospitals doing their best to care for the needy sick, medical planning for the present and the future is indeed called for. But who are the planners in this instance? That the American Medical Association, the American College of Physicians and the American College of Surgeons should be represented we expect. But what are the drug manufacturers and surgical supply houses doing in this company? In these days of vitamins chain grocery stores have as much a right to be heard. There were no official representatives of the great universities or the American Association of Medical Colleges. The Council on Hospital Plans, with ten million subscribers, the voluntary health insurance organizations, with more than a million subscribers, the large industrial corporations which minister to the physical needs of at least a million workers, the labor unions which have established medical services of their own, the governmental agencies that deal with public health and social security, the associations of nurses that know what kind of care the sick need—none of these was included, despite their immense experience.

"The manner in which the conference was conducted likewise left something to be desired. Dr. Thomas Francis, Jr., a distinguished authority in the field of epidemiology, had much of importance to say on a possible outbreak of influenza. Lt. Col. Thomas T. Mackie of the Medical Corps sounded a necessary warning on the potential hazard of tropical diseases which may be introduced by millions of disbanded soldiers. But the number of papers on planning were few, and these failed to indicate how our medical problem is to be solved in the light of new needs.

"There is no reason why any heterogeneous body of citizens should not voice its own ideas on any subject. But when that body professes to represent medicine as a whole, which in this case it did not, and when large public health organizations and the public itself are ignored, we can expect no more than what actually happened."

The *Times*, for reasons of its own, has for several years been severely critical of the American Medical Association. This must be taken into consideration in evaluating the sentiments expressed in its editorial.

While unity in this crisis is of utmost importance, one need not become too disturbed by these developments. Differences of opinion are a healthy sign and usually stimulate progress. Somewhere along the line our forces will be joined and a basis for united action agreed upon.

In this connection it might be added that a common ground must be found by organized medicine and the Government. There should be a friendly and frank exchange of views in an honest attempt to solve our health problems. Leaders in medicine who insist that they desire to coöperate but give no indication of their endeavor to do so are doing the medical profession a disservice. Equally unfortunate is the uncompromising attitude of some Government officials. If the public, which after all has the largest stake in the matter of health, is to be best served, there must be a mutual feeling of good will and trust. Let medicine lead the way!

CHOOSING LABORATORY TESTS

In an article of this title Montgomery[1] points out that it is not always easy to choose from among the great number of laboratory tests the ones which will be most useful in the conduct of any given case. Nevertheless, the development of this faculty of selection is especially important in expediting clinical diagnosis. On the other hand, badly managed laboratory conduct of a case is confusing and expensive.

In any case the history and physical examination of the patient should be completed before any tests are ordered. Of course, certain tests have become more or less routine procedures. These include the urinalysis, the complete blood count, and a serologic test for syphilis. It is not advisable from an economic or from any viewpoint to include other, more elaborate tests in the preliminary study of the patient. The practice of some physicians of routinely including such procedures as the electrocardiogram, estimation of the B.M.R., or culture of the stool is to be discouraged. These or any other kind of test should be used only when there is definite indication for it.

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[1] Montgomery, L. G.: J. Indiana M. A., 1943, 36, 40.

The availability and strict utility of a test should always be appraised before it is ordered. Tests that are done with facility and precision in one laboratory may not be available or may be poorly performed at another laboratory, simply because they are rarely employed. Some tests that are widely used really have very little practical value except in isolated instances, so that they should be ordered sparingly. Examples include the gastric analysis and the P.S.P. test of renal function. This latter test has enjoyed great popularity, mainly because it is easy to accomplish. Actually the normal range for this test is so wide that it cannot be given much credence unless the values reported are very high or very low. Renal function tests of greater utility and at least equal simplicity are the dilution and concentration tests. There are some tests which may be of value in one phase of a disease but completely valueless in another phase of the same disease. For instance, agglutination tests are helpful in the diagnosis of some of the infectious fevers. As a rule, however, they are not strongly positive until after the second week of the fever, and therefore such tests should not be ordered early. Other examples of a similar kind include the Graham-Cole study of the gall bladder and the bromsulfalein test of liver function, neither of which is reliable when the patient is jaundiced, and the study of the kidneys by intravenous urography, which is useless in cases of renal insufficiency.

The simpler tests should always be used first. Often a simple test will give more valuable information than innumerable more elaborate procedures. An example of a simple test which is only beginning to achieve the popularity it deserves is the erythrocyte sedimentation rate. This test is valuable in ruling in or out of a case the existence of systemic infection or advanced malignant neoplastic disease. The sedimentation rate is also increased in infarction, particularly myocardial infarction, and can be further employed in following the progress of such conditions. It is not usually affected by infections which are well localized, such as uncomplicated acute appendicitis. Diseases of the liver, however, invalidate the test, and the presence of anemia necessitates a correction in the final reading. There are a number of methods of performing this test; perhaps the most accurate is the Rourke-Ernstene method, which, however, is more time-consuming than the Wintrobe, Cutler, and Westergren technics.

A test should never be used unless the normal values are known and the variations from normal are in mind. As Montgomery points out, here the clinical pathologist will be of assistance. As a matter of fact, the clinician will do well to discuss his diagnostic problems more frequently with the pathologist. A clear understanding by the pathologist of what the clinician is seeking is of utmost value in improving the accuracy and completeness of laboratory reports. This is especially true with such tests as the blood culture, examination of the spinal fluid, stool examinations, and X-ray procedures. In connection with X-ray examinations the attending physician should have definite reasons for each procedure requested, he should preferably be present at fluoroscopic examinations, and he should review all films in company with the roentgenologist. Only by means of such coöperative effort will the mechanical aspects of the X-ray procedures obtain maximum clinical application.

Finally, the laboratory should be used as fully as possible, but according to some kind of logical plan. All too often the physician who is methodical and systematic in taking the history and examining the patient may request laboratory tests in an entirely haphazard manner. One kind of plan for the logical development of the laboratory study is summarized in the following table.

TABLE.—*Plan for Choosing Laboratory Tests*

	EXAMPLES	
	Indications	Tests employed
Basic tests	Routine	Complete blood count, urinalysis, serologic test for syphilis
Tests suggested by signs	Fixation of pupillary reflexes	Spinal fluid examination for syphilis
	Lump in the breast	Biopsy
	Membrane on the tonsil	Smears and culture
	Blood in the sputum	Bacteriologic examination of sputum
Tests suggested by symptoms	Productive cough	Sputum examination
	Weakness, tremor, and exophthalmos	Basal metabolic rate determination
	Polydipsia and polyuria	Urinalysis
Tests suggested by known or suspected disease	Severe burns, shock	Hematocrit measurement and total plasma protein estimation
	Tertiary syphilis	Spinal fluid examination
	Tularemia	Agglutination test
Tests to differentiate between two diseases	Acute appendicitis vs. acute salpingitis	Sedimentation rate
	Inflammatory lesions of the throat	Smears and culture
	Undiagnosed coma	Blood sugar and urea determinations
	Signs of meningitis	Spinal fluid examination
Tests suggested by results of previous tests	Positive blood test for syphilis	Spinal fluid examination
	Eosinophilia	Skin test for trichinosis
	Large numbers of leukocytes in spinal fluid	Smears and culture of spinal fluid
Tests suggested by changing conditions	Otitis media plus headache and stiffness of the neck	Spinal fluid examination
	Pregnancy plus symptoms of toxemia	Urinalysis
Tests which are best used in series to follow the course of a disease	Pulmonary tuberculosis	Repeated sedimentation rate determinations
	Diabetes mellitus	Repeated blood and urine glucose determinations
	Syphilis	Repeated serologic tests
Tests used as a guide to therapy	Treatment of obstructive jaundice with vitamin K	Prothrombin time
	Treatment of pernicious anemia	Reticulocyte and erythrocyte counts
Tests used in prognosis	Pneumonia	Blood culture
	Nephritis	Renal function tests
	Uremia	Blood creatinine estimation
Tests used in groups	Suspected typhoid fever	Agglutination tests for typhoid, paratyphoid A and B, brucellosis, and proteus X-19
	Glycosuria	Test for acetonuria

TABLE.—*Plan for Choosing Laboratory Tests—Concluded*

H. H. H.

INVALID DIETS AND FOOD RATIONING

Of interest to all who are concerned with diets for invalids is Ration Order 13, issued by the Office of Price Administration under date of February 9, 1943. This order covers all canned, dried, and frozen fruits and vegetables. Article II, Section 2.5 of the order reads as follows:

"Consumers who need more processed foods because of illness may apply for more points.

(a) Any consumer whose health requires that he have more processed foods than he can get with War Ration Book Two, may apply for additional points. The application must be made on OPA Form R-315, by the consumer himself or by someone acting for him, and may be made in person or by mail. The application can be made only to the board for the place where the consumer lives. He must submit with his application a written statement of a licensed or registered physician or surgeon, showing why he must have more processed foods, the amounts and types he needs during the next two months, and why he cannot use unrationed foods instead.

(b) If the board finds that his health depends upon his getting more processed foods, and that he cannot use or cannot get unrationed foods, it shall issue to him one or more certificates for the number of points necessary to get the additional processed foods he needs during the next two months."

The application form referred to above, OPA Form R-315, is apt to be somewhat confusing to patients. It is titled "Sugar Special Purpose Application" and was developed primarily to meet the need for home canning. It is being used temporarily, until a more adequate form can be gotten out.

It is anticipated that the procedure indicated in Section 2.5 above may be changed somewhat in the future, in which case due notice will be provided.

PERTINENT PARAGRAPHS

March Meetings Excellent attendance at scientific meetings continued during the month of March. Many favorable comments were heard on the type of programs offered. Because of the number of general sessions of the Society, there were fewer meetings of boards and committees than usual.

The following meetings were held:

March 3	Business Meeting of the Society
March 4	Committee on Public Policy
March 5	Section on Neurology and Psychiatry
March 9	Procurement and Assignment Committee
March 10	Scientific Meeting of Society
March 16	Interprofessional Conference
March 17	Scientific Meeting of Society
March 22	Postgraduate Course on Acute Respiratory Diseases
March 23	Executive Board
March 24	Scientific Meeting of Society
March 26	Committee on Arrangements, 15th Annual Scientific Assembly
March 29	Postgraduate Course on Acute Respiratory Diseases
March 31	Scientific Meeting of Society

★

What a Tale! Most contributors to medical journals make no pretense of being masters of the written word. More often than not they are inexpert when it comes to literary endeavor and their writings have given many an editor a headache. Very few indeed are capable of bandying six-dollar words.

Occasionally there is a physician who can "dish it out" with the best of them. Such a man apparently is Dr. J. Phil. Edmundson who contributed the following article to the March 13 issue of the *Jackson County (Missouri) Medical Society Weekly Bulletin.*

> "The implications of human evolution always have intrigued us. . . . Perhaps it is not our poor prerogative to question the eternal fitness of things, but when we were taught in our sophomoric years that the vermiform appendix is but the vestigial remnant of a once bigger and better gut, or that tonsils represent what once were our gill-slits in a previous piscatory age, we are inclined to cock a jaundiced eye at the 'wonders of nature.'
>
> "Why were certain anatomic structures marked up for eventual elimination while others remain in our all-too-imperfect bodies to further bedevil us in times of stress? Why leave our gall-bladders, our tonsils, our appendices, or even our stomachs, with all of which we might well dispense, only to deprive us of one of the most useful, most versatile, most pristinely precious relics of arboreal days and nights which has forever gone from us?
>
> "Gentle Reader, let us pause here to make a confession.

Let us admit freely that, have you followed us to this point, we were deliberately leading you on to a climactic admission, which is this: *always we have wanted a tail!*

"Not a short, stubby, insignificant tail; a tail likely to embarrass one by wagging excitedly and without dignity in moments of great joy. Not in a thousand years would we be content with such a tail. No, ours must be a long, sleek, glossy, prehensile tail: one capable of grasping and being grasped; curling and uncurling; coiling and uncoiling; one by which we could swing from tree to tree or chandelier to chandelier; one with which we could shake down a thermometer while using both hands to take blood pressure. A gorgeous, glorious, exciting tail; one with which to retrieve golf balls without so much as a grunt or genuflection; one so flexible, so versatile, so completely simian as to insinuate itself into the slit of a ballot box and reverse our ballot, thus correcting our vote for a legislator held in high favor until a moment before.

"Where were we? Oh, yes, we should not have been so selfish as to want a tail for ourselves, only. We feel that every Doctor of Medicine in the State of Missouri might well be possessed of at least one tail per capita, thus enabling him to remain in character while going through some of the gymnastics apparently expected of him all too soon.

"Not only would such caudal appendage permit him to swing from one legislative body to another; one issue to another; one Representative to another; but would finally enable him—still in character—to accept the passage of House Bill No. 85, which would permit osteopaths to assume positions of equal importance with medical men in our state-supported institutions in Missouri.

"Thus, having made monkeys of all of us—

"Please give us our tails!"

* * *

Finis for Specialization?

In view of the request being made of specialists in the District of Columbia that they do general practice in an emergency, comments which appeared in the March 1943 number of the *Rocky Mountain Medical Journal* are of special interest. An editorial entitled "The End of Specialization?" reads in part as follows:

"It is interesting how frequently one hears, even among medical men, the sentiment expressed that the specialist has no place in the war time effort, either in the military services or in civilian practice.

"Especially so, since the trend generally, in the military forces and in civilian industry, has been toward greater and greater specialization, in the interests of greater efficiency. That medicine should be the one exception does not make sense.

"It is true that in the armed forces, the doctor does not always find himself placed in the job that he can do best, or for which he was specially trained. This is not because of any inherent fault in special qualifications, but to the fact that there are not enough of some categories, and too many of others, for an emergency need.

"In the field of civilian practice, it is difficult to see how specialists who already are working twenty-four hours a day, doing most efficiently the things they are best qualified to do, could better serve the home front and the war by attempting to do the many other medical jobs with which they are not familiar, and which they are not qualified to do.

"Without wishing to detract in any way from the many virtues which have been attributed, and justly so, to the traditional 'old family doctor,' and at the risk of a charge of heresy, we feel that the medical interests of the population as a whole could be better served by care of the individual by groups of specialists."

Despite predictions to the contrary, one can safely prophesy that specialists will continue to flourish during and after the war. Nevertheless, it is quite apparent that in many communities where there is now an acute shortage of general practitioners, it will be necessary for specialists who are not already too heavily burdened, to do general practice during the emergency.

* * *

Special Parking Privileges for Physicians

Following a conference held on January 18 attended by Mr. W. A. Van Duzer, Director of Vehicles and Traffic, Inspector Arthur E. Miller of the Metropolitan Police Department, and Mr. Theodore Wiprud, Secretary of the Medical Society, it was announced that the courtesy of parking in violation of certain regulations when on professional calls would be granted physicians. However, it was agreed that the following conditions must be observed:

1. The car must be properly identified by an appropriate insignia.

2. The doctor must be on a professional call to patients seriously ill and no legitimate space be immediately available within a reasonable distance.
3. The following places may be used for parking:
    (a) Entrances to apartments.
    (b) Commercial vehicle loading zones.
    (c) Places set aside for holders of official parking permits.
    (d) Approach end or "heel" of a bus zone.
    (e) Side of a street which is restricted at all times.
    (f) Restricted zones approaching signal lights, but not at stop signs.
    (g) Alleys if a space of ten feet is left open.
    (h) Abreast away from corners on wide streets or streets where traffic is light.
4. There must be no parking on streets restricted for "No Standing" within certain periods, on taxicab stands, by fire plugs, so as to obstruct crosswalks, or between platforms and the curbs.

It is exceedingly important that physicians observe these rules so as not to give cause for the withdrawal of special privileges.

The Medical Society has had printed for its members cards which bear the seal of the Society, provide a space for the physician's name, and state that he is on a professional call. This card has been approved by Mr. Van Duzer and Major Edward J. Kelley, Superintendent of Metropolitan Police. It should be placed inside the left front windshield where it can be readily seen by police officers, when the physician is parked in other than a legitimate place.

Cards can be obtained by members of the Society upon application in person at the Society's Executive Office.

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Doctors' Signatures Doctors are proverbially no great shakes as penmen. On the contrary, their scrawl is often undecipherable and a vivid imagination plus talents of an investigative nature sometimes fail to identify a physician's signature. But however unreadable it may be, it is a part of him and on its use or misuse may depend his fortunes. This premise is very well stated in an article in the *Bronx County (New York) Medical Bulletin* for March 1943, from which the following is taken:

"From the beginning of time a man's signature has been one of his most valued possessions. Upon his signature or lack of it his life and property may depend. So important is it that even the illiterate is held responsible with nothing more than a cross mark to involve him. When a professional man places his signature on a paper he certainly must realize the possible consequences.

"Although we have constantly cautioned members in this regard we regularly hear of cases where physicians, because of their failure to realize the far-reaching import of their signatures, submit questionable affidavits merely because a patient requests them. No doubt an element of truth concerning the illness of the patient exists; but the doctor makes a grave error when he submits frivolous affidavits, and affidavits containing hyperbolic statements of conditions, as well as evidencing a complete disregard for dates, periods of illness and intensity of treatment. This occurs because the doctor, when unable to recall the facts in detail, trusts to the patient's statement of the case. However, the patient is not placing his signature on the paper; you, Doctor, are. And some very important action is going to be taken on what you, as an intelligent, reputable citizen and professional man have sworn to.

"Like most suggestions made through your *Bulletin* our reason for calling this to your attention is the unhappy fact that a few doctors have failed to realize the importance of their signatures in as great a crisis as war. All governmental agencies have the right to expect that the doctor who prides himself in the privileged doctor-patient relationship will never wittingly or unwittingly assist a potential law-evader (mild connotation) to achieve his aim. Our Selective Service has the right to depend completely on every statement a doctor makes even to the significance of punctuation marks. Should a physician feel that such technicality is exaggerated then he should refrain from submitting affidavits. The goverment does not solicit them and when it receives them it expects facts within the doctor's knowledge, not the patient's.

"We mentioned frivolous affidavits. This does not concern the content but the fact that such affidavits are given at all; for example, statement of dependent's condition as a reason for deferring a man subject to draft. Is it enough to hint that some of the conditions cited are considered quite universal and were the government to make them cause for exemptions the country would be sans army, navy, marines, etc.

"It is the doctor's duty to give affidavits when the occasion demands. Well considered, specific, factual data by a professional man is invaluable, especially today. However, the purpose for which the affidavit is requested should be ascertained and the statements therein should be accurate and on the doctor's knowledge, not the patient's."

There are many ways in which doctors have been careless with their signatures. Too often they have appended them to notes, contracts, petitions and communications with little thought of the consequences. A good maxim for the doctor is: "Read thoughtfully before you sign."

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Are Doctors Overworked? Warning that there is considerable misapprehension in regard to the burden physicians in civilian practice are carrying, the *Texas State Medical Journal* for February 1943 expresses the opinion that "they are definitely overworked."

The Secretary of the State Medical Association of Texas is quoted as writing the membership: "Belly-ache all you want to your colleagues about the hard time physicians are having, but refrain from complaining in public—as individuals or as groups."

Commenting on this statement, the *Journal* says:

"The obvious purpose of this warning is that we do not ourselves set up false premises in this connection. As we have said, there is beyond any doubt a shortage of physicians in many areas of our State, but also beyond any doubt, except in a few particulars, the shortage complained of is not as real as alleged. A patient failing to get his doctor promptly, when called, immediately feels that the shortage of doctors is serious. He overlooks the fact that such an incident could easily have happened in other times, when doctors were distressingly plentiful. A doctor who is seriously overworked for a day or two is likely to feel that his predicament is due entirely to the war, whereas no doubt he had at other times been equally as busy, and equally as distressed. Such incidental situations emphasize and make real complaints which are not, as a matter of fact, fully justified in the light of actual necessity. At that, it is generally understood, we believe, that we are supposed to do without many things during the war, things we very much want and are certain that we need. We complain with equal vigor that we don't have enough gas, or rubber, or coffee, or bacon, or many other such things. These commodities are all being rationed; so are the doctors. The situation hardly would justify setting up a permanent rationing system, or even setting up government subsidy in connection with the supply of any of them.

"Beyond any doubt it is our obligation to meet the medical needs of our people, and we have no doubt but that will be done, one way or another. The big idea should be that we not create a false impression as to the seriousness of the situation. There will be no hesitancy in agreeing to any plan necessary to accomplish results in this connection, but in the meantime it is hoped that every agency concerned will approach the problem from a realistic rather than a statistical angle."

These observations are of particular interest to Washington physicians in view of the efforts now being made by the Committee on Medical Service to ascertain the facts about medical care of the civilian population in the Nation's Capital.

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Your Pharmacist Will Coöperate Physicians will obtain better service if they will coöperate with pharmacists in the following ways:

"When medicines are needed quickly, much time can be saved if the physicians will telephone the pharmacy so that prescriptions may be ready when called for or their delivery expedited.

"Considerable loss of time and effort, as well as expense, can be avoided if the physician will coöperate fully in the observance of Federal regulations governing the prescribing of codein and similar drugs. The physician and the pharmacist are both required by law to furnish and record properly written and signed prescriptions for such orders promptly. Telephoned prescriptions, accepted by the pharmacist in good faith, too frequently add to his difficulties because of the time and effort often required to obtain the written prescription.

"The Federal Food and Drug Act covers two classes of drugs and drug products, in the prescribing and distribution of which both the physician and the pharmacist are particularly concerned. The first group is made up of inherently dangerous drugs such as the sulfas, barbiturates, aminopyrine, cincophen, thyroid, diethylstilbestrol, etc., and their derivatives and combinations, as well as certain other drugs which while not in themselves dangerous, nevertheless under certain conditions may be contraindicated. The regulations require that such drugs be taken by patients only under the direct order and supervision of a physician and therefore must be prescribed in proper form. Oral order directly to the pharmacist is permitted, unlike the requirements for the prescribing of narcotics.

"When prescribing such drugs, the prescribing physician may, if he deems it necessary, note on the original prescription that it may be refilled once or twice on the patient's call without the physician or pharmacist losing time by telephoning for permission.

"The second group of drug products are those of a general nature which are not necessarily dangerous but which fail to carry on the package full and proper directions for use, as well as contraindications and warnings. Many manufacturers avoid responsibility by labeling even relatively simple products, 'To be used on the prescription of a physician,' or 'As directed by the physician.' Unless prepared drug products are properly marked with dosage and other instructions, physicians should use a prescription form as the pharmacist is usually not allowed to sell inadequately labeled products over the counter."

These suggestions appeared in the February issue of the MEDICAL ANNALS but because of their importance, are reprinted in this issue. Their observance will be of mutual advantage to the medical and pharmaceutical professions, and the public.

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Health of American Troops Abroad

Recent reports in regard to the excellent health of our troops still on home soil are most gratifying. It is well known that the United States Army is the best fed and clothed army in the world. It also receives the best medical care.

How are our soldiers faring abroad? The December 1942 issue of the *Statistical Bulletin of the Metropolitan Life Insurance Company* throws considerable light on this subject. Asserting that the health of our boys who are stationed in the northern regions—Alaska, Greenland and Iceland—and the temperate zone where health conditions are similar to those under which most Americans live has been maintained at a high level, the *Bulletin* says:

"In contrast, the tropical and subtropical regions present a host of new problems to our military physicians. The tropical regions in which our troops are now located girdle the globe—the Caribbean Islands, Brazil, West Africa, North Africa, Egypt, Mesopotamia, India and the many island groups in the South Pacific. The diseases present in this huge area are largely insect-borne and include malaria, typhus, dysentery, yellow fever, plague, and cholera, as well as others of which even the names are unknown to most Americans, such as kala-azar, dengue fever, and sandfly fever. Some of these diseases, like malaria, are common to practically all of these regions, whereas others, like yellow fever, are fairly localized. Everywhere, however, the heat itself gives rise to serious medical problems, because of its direct effect on the troops or because of the difficulties it brings in protecting their food and water supplies. These are particularly acute during active fighting and in nearby occupied areas."

The *Bulletin* then reviews some of the steps taken to prevent the spread of disease.

"All our troops are protected against typhoid and smallpox, and those who are at all likely to be exposed to yellow fever, typhus, and cholera are inoculated against these diseases. Against many others, reliance must be placed on sanitary measures directed to the destruction of the disease-transmitting insects or to reducing exposure to them by screening of buildings, by protective clothing and netting, and by use of repellent substances. Such measures are the main defense against sandfly fever and dengue, which are major causes of sickness in some areas but fortunately are seldom fatal.

"Malaria is by far the most serious disease problem. This is the outstanding killer in many tropical countries. Its control is difficult, because we have no specific method of prophylaxis. Under normal conditions control depends chiefly upon destroying the breeding places of the malaria-carrying mosquitoes. These mosquitoes, however, are so prevalent that it is impossible to prevent infection, but its ravages can be checked by routine administration of quinine or synthetic drugs—principally atabrine. These do not prevent the disease, but merely postpone its manifestations. In combat areas, they are the only dependable measure. The Japanese conquest of the Dutch East Indies, the major source of the world's quinine, put a stop to our acquisition of further supplies of this drug. Fortunately, prior to that time we had built up a large stock and this, together with the greatly expanded production of atabrine, will meet our needs in even a protracted war."

"The intestinal disorders, including dysentery, likewise constitute an ever-present problem in the tropics. Troops located in those regions cannot escape them, especially where active military operations are going on, as in North Africa, the Solomons, and New Guinea. . . Preventive control requires rigid adherence to prescribed sanitary procedures and instruction of the men in measures to protect themselves.

"Typhus is popularly associated with eastern and southeastern Europe, but is by no means limited to these places. North Africa is an important focus of the disease; only this year severe epidemics have occurred in every part, from Morocco to Egypt. Typhus is of little danger to our troops fighting in Northern Africa. Relatively simple and tried sanitary procedures should probably suffice to keep them free from typhus in Africa as well as in other endemic areas. However, immunization has also been applied, although its effectiveness is still to be confirmed.

The climate itself is a specific hazard in the tropics, although the seasoned troops suffer far less from the heat than new arrivals."

Military authorities are fully aware of these problems, the *Bulletin* assures its readers, and are doing everything within their power to prepare facilities to meet them. The few reports available on the situation show that our medical officers have already accomplished a great deal. Probably no body of fighting men in the tropics has ever had a health record anything like as good as that of our men now stationed there.

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Our Associate Members

One could safely hazard the guess that if the members of our Society were queried as to whether they had read the Society's Constitution and By-laws, surprisingly few could honestly answer in the affirmative. This perhaps accounts for the fact that Active Members have expressed surprise that others than doctors of medicine are eligible for membership in our Society. The fact is that a goodly number from other professions, some of whom are outstanding in their respective fields, hold Associate Memberships. Chapter II, Article V of the Society's Constitution and By-laws, provides for this type of membership in the following language:

> "Associate members shall be doctors of medicine not eligible for active membership or scientists engaged in collateral lines of activity or research. They shall be elected in the same manner as active members; they shall have the privilege of attending and participating in the scientific sessions of the Society, and shall receive its publications and notices of its scientific meetings; they shall not vote or hold office in the Society, shall be subject to its discipline, and pay such dues and assessments as may be imposed by the Society. Associate members, upon becoming eligible for active membership, shall make formal application for active membership. On failure to do so within three months, they shall cease to be associate members."

Among the outstanding Associate Members of our Society who are not doctors of medicine are Dr. C. Willard Camalier, Past President of the District of Columbia Dental Society, the National Association of Dental Examiners, and the American Dental Association, and at present a member of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians; Dr. Sterling V. Mead, Past President of the District of Columbia Dental Society, formerly Vice President of the American Dental Association, now Chairman of the Legislative Committee of the A. D. A.; Dr. Daniel F. Lynch, Past President of the District of Columbia Dental Society, Chairman of the Research Commission of the A. D. A. and Chairman of the Pan American Relations Committee of the A. D. A.; Dr. David E. Buckingham, Founder and Dean of the College of Veterinary Medicine of George Washington University (1908–1918), Assistant Biologist, U. S. Biological Survey, Alaska (1924), Veterinarian to the Byrd

(*Continued on page 170*)

War Section

DUES OF PHYSICIANS IN MILITARY SERVICE

At its business meeting on March 3, the Medical Society approved the recommendation of the Executive Board that beginning with 1944, dues of all Active Members of the Medical Society on extended military duty be remitted and in meritorious cases as determined by the Executive Board, adjustments of 1943 dues be made.

All members in the armed forces will be notified by letter of the Society's action.

ARMY'S 1943 RECRUITING PROGRAM

The 1943 recruiting program of the Surgeon General of the Army calls for the commissioning of 6,900 physicians and approximately 3,000 hospital interns and residents, it is reported in *The Journal of the American Medical Association* for March 13 in an outline of the new procedure of processing physicians, dentists and veterinarians for the Army. The program also calls for the commissioning of 4,800 dentists and 900 veterinarians.

Physicians will be procured from the following twenty states and the District of Columbia: California, Colorado, Connecticut, Illinois, Iowa, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont and Wisconsin.

The following states have already contributed more physicians to the armed forces than the sum of their 1942 and 1943 quotas and will not be called on to furnish any more physicians, except interns and residents and except in special cases for specific position vacancies, during 1943: Alabama, Arizona, Delaware, Georgia, Idaho, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, Tennessee, Texas, West Virginia and Wyoming.

It is stated that at present there will be no procurement of physicians, except interns and residents and in special cases for specific position vacancies, in those states not listed above. There will be no procurement of dentists, except in special cases for specific position vacancies, in the following sixteen states: Alabama, Arizona, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.

At the present time there are no restrictions on the recruiting of veterinarians.

In the instructions issued by the Army it is pointed out that the Surgeon General has discontinued all medical officer recruiting boards and that under the new procurement program no physician, dentist or veterinarian will be commissioned in the armed forces of the United States until he has been declared "available" by the Procurement and Assignment Service of the War Manpower Commission.

In each state the Procurement and Assignment Service has set up three state chairmen: medical, dental and veterinary. Each of these prepares a monthly quota list of physicians, dentists and veterinarians who are apparently suitable and who are available, for commissioning in the Army of the United States. This list is submitted to the central office of the Procurement and Assignment Service, which sends a communication inviting such individuals to apply for service with the armed forces. On the reply card enclosed with the invitation the individual states his preference for the Army, Navy or Medical Department of the Air Forces. These reply cards are sent by the potential applicants to the state chairmen of the Procurement and Assignment Service, who in turn submit lists of such potential applicants to the Officer Procurement Service of the Army.

On receipt of such lists the officer procurement district office contacts the potential applicant and arranges for an interview regarding a commission.

Applicants will be requested by the officer procurement district office to complete all papers and take all steps required of them within fourteen days of the date of such request. If this is not complied with, a report thereon will be transmitted by the officer procurement district office to the state chairman of the Procurement and Assignment Service.

The decision as to the grade and appointment to be recommended for each candidate rests with the Surgeon General, not with the Officer Procurement Service.

MEETINGS

Wednesday, May 5

Annual Business Meeting

Election of officers; adoption of annual reports; current reports of Board of Censors and Executive Board.

Speaker to be announced.

Buffet Supper

Wednesday, May 12

Scientific meeting. Program to be announced.

NEWS AND PERSONALS

The Regional Meeting of the American College of Physicians will be held in Washington, Saturday, April 24. The morning session will open at 10:00 a.m. at Walter Reed General Hospital, and papers will be presented by the following staff members of the Hospital: Major A. O. Hampton, M.C., U.S.A., Chief of X-Ray Department; Major Louis Krause, M.C., U.S.A., Assistant Chief of Medical Service; Lt. Col. R. Glenwood Spurling, M.C., U.S.A., Assistant Chief of Surgical Service and Chief of Neurosurgical Section; Major George P. Robb, M.C., U.S.A., Chief of Cardiovascular Section; Capt. Dale C. Stahle, M.C., U.S.A., Executive Assistant, Medical Service; Lt. Col. Louis E. Lieder, M.C., U.S.A., Chief of Allergy Clinic; Capt. L. L. Pennock, M.C., U.S.A., Allergy and Diabetes Section, and Major Z. N. Korth, M.C., U.S.A., Chief Dermatologist. Lt. Col. Thomas T. Mackie, M.C., U.S.A., Chief of Division of TropicalMedicine and Parasitology, and Colonel Harry Plotz, M.C., U.S.A., Chief of Division of Virus and Rickettsial Diseases, both of the Army Medical School, will also participate in the morning meetings.

Members and guests will convene at the U. S. Naval Hospital, Bethesda, Md., for the afternoon program. Participants will be Capt. Winchell M. Craig, M.C., U.S.N.R., Chief of the Neurosurgical Service, U. S. Naval Hospital; Comdr. Arthur M. Master, M.C., U.S.N.R., Consulting Cardiologist, U. S. Naval Medical Center; Comdr. R. H. Draeger, M.C., U.S.N., Executive Officer, Naval Medical Research Institute; and the following officers from the U. S. Naval Medical School: Capt. F. C. Greaves, M.C., U.S.N., Executive Officer; Comdr. L. R. Newhouser, M.C., U.S.N., Officer-in-Charge, Blood Plasma Unit; Lt. F. S. Cheever, M.C., U.S.N.R., Department of Epidemiology, and Lt. J. J. Engelfried, M.C., U.S.N.R., Department of Clinical Chemistry.

The meetings will close with an informal dinner at the Statler Hotel. **Dr. Wallace M. Yater,** General Chairman and Governor for the District of Columbia, will act as toastmaster. A number of distinguished guests will be present, among them Dr. James E. Paullin, President of the American College of Physicians and President-elect of the American Medical Association; Rear Admiral Ross T. McIntire, Surgeon General of the Navy; Dr. Thomas Parran, Surgeon General of the United States Public Health Service; Brigadier General Charles C. Hillman, Chief of Professional Services, Surgeon General's Office, U. S. Army; and Comdr. Edward L. Bortz, U.S.N., Governor for Eastern Pennsylvania, George M. Piersol, Secretary-General, and Edward R. Loveland, Executive Secretary, of the American College of Physicians.

The 76th Annual Meeting of the West Virginia State Medical Association will convene at the Daniel Boone Hotel in Charleston, May 17–18.

Relatives of **Captain William Raffel** have informed us that he is on duty in England and was a delegate to the Interallied Medical Convention which met in London, March 1.

A "War Conference" of Industrial Physicians and Surgeons and Industrial Hygienists will be held in Rochester, New York, May 24–27 for the purpose of pooling knowledge and exchanging experiences relating to the many new and complex problems arising out of wartime industrial production. There will be no registration fee.

The 41st Annual Conference of the United States Public Health Service with the State and Territorial Health Officers was held in the Medical Society's auditorium, March 22–25.

Attendance at the **Postgraduate Course on Acute Respiratory Diseases,** sponsored by the Medical Society, was very satisfactory. Much credit is due the Committee on Postgraduate Education, under the chairmanship of Dr. Philip A. Caulfield, for bringing to Washington three outstanding speakers in their field. The first lecture on "The Common Cold and Influenza" was given March 22 by Dr. Thomas Francis, Jr., Professor, Department of Epidemiology, School of Public Health, University of Michigan. On March 29, Dr. Hobart A. Reimann, Magee Professor of the Practice of Medicine and of Clinical Medicine, Jefferson Medical College, spoke on "Pneumococcus Pneumonia." The concluding lecture on "Virus Pneumonia" was presented by Dr. John H. Dingle, April 5. Dr. Dingle, on leave of absence from Harvard Medical School, where he has served as Instructor in Bacteriology and Immunology and Associate in Medicine, is now with the Commission on Acute Respiratory Diseases of the United States Army at Fort Bragg, North Carolina.

Major General James C. Magee, Surgeon General of the United States Army, addressed the opening meeting of the 119th session of the **George Washington University School of Medicine,** March 1. General Magee stressed the possibilities of promoting international relationships through a knowledge of tropical diseases.

In order to meet wartime needs **Dean Walter A. Bloedorn** announced that courses in tropical medicine, nutrition and first aid have been added to the curriculum. The School of Medicine has a near capacity enrollment of 292.

Georgetown University School of Medicine held graduating exercises, March 14. **William E. Leahy,** Director of Selective Service for the District of Columbia, addressed the class, following which the School of Law conferred upon Mr. Leahy, alumnus and former professor, the honorary degree of Doctor of Laws.

The Dr. James A. Cahill Medal was awarded to Charles B. Whitaker of Columbia, South Carolina.

Of the class of 69 graduates, 18 were commissioned first lieutenants in the Army Medical Reserve Corps.

Doctors Hospital has launched a campaign to sell $100,000 in War Bonds to buy a bomber in memory of the late **Lieutenant Henry R. Ringness, M.C., U.S.N.R.,** who lost his life in action on Guadalcanal. Dr. Ringness, a graduate of George Washington University School of Medicine, served as resident in pathology at Doctors Hospital during 1940–41. Following his residency he entered the Navy, trained at Pensacola as a flight surgeon, and was stationed for a short time at San Diego before going overseas with the Marines.

The campaign to "Buy Hank a Bomber" was launched March 18 and will be concluded June 15. Subscriptions for bonds are available at Doctors Hospital from 9 a.m. to 6 p.m. to members of the medical profession and others who may wish to participate. The sum of $50,000 has already been subscribed.

The George Washington University Medical Society held its fifth meeting of the year, March 20. Captain Winchell M. Craig, M.C., U.S.N., of the Department of Surgery, National Naval Medical Center, addressed the Society on the subject, "The Diagnosis and Treatment of Head Injuries in Combat and Civilian Casualties." Discussion was led by Commander Don S. Knowlton, M.C., U.S.N., who has just returned from active duty in the South Pacific.

Dr. Henry C. Macatee, Dr. Coursen B. Conklin and Theodore Wiprud attended the National Conference on Planning for War and Postwar Medical Services which was held under the auspices of the Carlos Finlay Institute of the Americas at the Waldorf Astoria Hotel, New York, March 15.

Dr. Henry L. Darner gave a talk on "Community Cancer Problems" before the Washington Branch of the American Association of University Women, March 29.

Dr. William DeKleine participated in a discussion of "War-Food Problems at Home and Abroad" at a meeting of the Thomas Circle Club, March 29.

Dr. Malcolm T. MacEachern, Associate Director of the American College of Surgeons, spoke on "Staff Organization and Interne Training in Wartime" at a staff meeting at **Doctors Hospital,** March 18.

Parke, Davis & Company was awarded the Army-Navy "E" pennant, February 26, for its excellent record in producing pharmaceutical and biological products.

BOOKS RECEIVED FOR REVIEW

Operating Room Technique. EDYTHE LOUISE ALEXANDER, R. N., Supervisor of Operating Rooms of Roosevelt Hospital, New York; formerly Supervisor of Operating Rooms, Mountainside Hospital, Montclair, N. J.; Supervisor of Private Pavilion Operating Rooms, New York Hospital, New York. Pp. 392, with 221 illustrations. Price, cloth $3.75. St. Louis: Mosby, 1943.

Flying Men and Medicine: The Effects of Flying upon the Human Body. E. OSMUN BARR, M.D. Pp. 254, illustrated with drawings and diagrams. Price, cloth, $2.50. New York: Funk & Wagnalls, 1943.

Neurosurgery and Thoracic Surgery. Military Surgical Manuals VI. National Research Council. Pp. 310. Philadelphia: Saunders, 1943.

Orthopedic Subjects. Military Surgical Manuals IV. National Research Council. Pp. 306. Philadelphia: Saunders, 1942.

The March of Medicine. New York Academy of Medicine Lectures to the Laity, 1942. Pp. 217. Price, cloth, $2.50. New York: Columbia Univ. Press, 1943.

Indigestion: Its Diagnosis and Management. MARTIN E. REHFUSS, M.D., Professor of Clinical Medicine, AND SUTHERLAND M. PREVOST, Lecturer in Therapeutics, Jefferson Medical College, Philadelphia. Pp. 556, with 63 illustrations. Price, cloth, $7.00. Philadelphia: Saunders, 1943.

Synopsis of Diseases of the Skin. R. L. SUTTON, Emeritus Professor of Dermatology, AND R. L. SUTTON, JR., Assistant Professor of Dermatology, University of Kansas Medical School. Pp. 481, with 413 illustrations. Price, cloth, $5.50. St. Louis: Mosby, 1942.

BOOK REVIEWS

Psychosomatic Medicine. EDWARD WEISS, M.D., Professor of Clinical Medicine, AND O. SPURGEON ENGLISH, M.D., Professor of Psychiatry, Temple University Medical School, Philadephia. Pp. 687. Price, cloth, $8.00. Philadelphia: Saunders, 1943.

Liberal doses of this book should be prescribed for every medical student and medical graduate. And the more busily the reader is engaged in caring for patients, the larger should be the doses.

Drs. Weiss and English have constructed their book so that a foundation in psychosomatic medicine can be obtained by reading the first two and the last four chapters. The former serve as an introduction to the text. The latter cover the general principles of psychotherapy, "normal" problems in psychotherapy, special therapeutic procedures, and advice on training in psychosomatic medicine. The central portion of the book is divided into chapters concerned with the various systems of the body and one chapter on military medicine.

The authors have been jointly engaged for many years at Temple University in the studies which led to the writing of their book. They are to be commended for the thoroughness, clarity and technic of their work. Artistically as well as scientifically it is splendid. They give the reader a clear understanding of the need and methods for making a study of the patient's personality as well as his body before any diagnostic impression can be obtained. The book is enlightened throughout with the reports of case studies which obviously have been derived from the authors' extensive experience.

The latter part of the book contains several pages of references and a truly valuable index. This index is so constructed that the material on a given subject is indicated from the standpoint of general discussion and as it applies to specific cases. The format of the book does credit to the publishers.

H. H. H.

Central Autonomic Regulations in Health and Disease. HEYMEN R. MILLER, M.D., Associate Attending Physician, Montefiore Hospital, New York City. Pp. 430, with 64 illustrations. Price, cloth, $5.50. New York: Grune and Stratton, 1942.

This book might well serve as an excellent reference companion for "Psychosomatic Medicine" (see review in this issue). Dr. Miller has thoroughly reviewed the literature in connection with his subject and has correlated a tremendous number of facts. The result is a text which offers the clinician a keen insight into the relation of the autonomic nervous system, and particularly the central autonomic controls, to clinical medicine.

After an introductory chapter on the general physiology of the autonomic nervous system, the author considers in detail its role in the regulation of each of the important body functions. The last part of the book contains chapters on the response of the autonomic nervous system to pharmacodynamic substances and on the anatomy of the autonomic nervous system. The book is well illustrated and contains a very complete bibliography. The printing and physical structure are excellent.

H. H. H.

REPRINTS RECEIVED

The following reprints have recently been received for which due acknowledgment is made:

"Twenty Minute Cardiac Arrest with Complete Recovery." Herbert D. Adams and Leo V. Hand. Journal of the American Medical Association, January 10, 1942.

"The Sale of Alcoholic Beverages." Leo Alexander, Merrill Moore, and Abraham Myerson. Mental Hygiene, April 1942.

"Subdural Hemorrhage in Patients with Mental Disease." Anna M. Allen, Merrill Moore, and Blanche B. Daly. New England Journal of Medicine, 1940, **223**, 324.

"Another Aid in Prostatic Resection." Norvell Belt. Journal of Urology, February 1942.

"Polypoid Bronchial Tumors with Special Reference to Bronchial Adenoma." Harold Brunn. Frank Howard Lahey Birthday Volume, 1940.

"Tuberculous Cavitation and Transpleural Decompression." Harold Brunn, Sidney Shipman, Alfred Goldman, and Loren Ackerman. Journal of Thoracic Surgery, June 1941.

"Bronchial Adenoma." Harold Brunn and Alfred Goldman. American Journal of Surgery, October 1941.

"The Surgical Problem of Chronic Gastritis." Harold Brunn and Rubin L. Gold. Surgery, Gynecology and Obstetrics, January 1941.

"The Differentiation of Benign from Malignant Polypoid Bronchial Tumors." Harold Brunn and Alfred Goldman. Surgery, Gynecology and Obstetrics, December 1940.

"Two Interesting Benign Lung Tumors of Contradictory Histopathology." Harold Brunn. Journal of Thoracic Surgery, December 1939.

"Recent Advances in the Surgical Treatment of Carcinoma of the Colon and Rectum." Richard B. Cattell and Everett D. Sugarbaker. Surgery, April 1942.

"Selection of Operation for Cancer of the Colon and Rectum." Richard B. Cattell. Connecticut State Medical Journal, May 1942.

"A Mortality Study of Applicants for Insurance Showing Albuminuria and Casts." Charles L. Christiernin, Louis I. Dublin, and Herbert H. Marks. Read at the Fiftieth Annual Meeting of the Association of Life Insurance Medical Directors of America, October 19–20, 1939.

"The Five Day Treatment For Syphilis." Walter Clark. Journal of Social Hygiene, May 1940.

"Physical Anthropology of the American Negro." W. Montague Cobb. American Journal of Physical Anthropology, June 1942.

"Estrogen Therapy of Agitated Depressions Associated with the Menopause." Lewis Danziger. Archives of Neurology and Psychiatry, February 1942.

"Heart Disease and Public Health." Louis I. Dublin. American Heart Journal, January 1942.

"A Note on the Inheritance of Cardiovascular Disease—Results of Life Insurance Investigations." Louis I. Dublin and Herbert H. Marks. Journal of the Mount Sinai Hospital, January–February 1942.

"Responsibility of the Medical Profession towards the Political Institutions of the Nation." Wells P. Eagleton. Journal of the Medical Society of New Jersey, February 1942.

"Review of Recent Progress: The Aims of Birth Control and Their Place in Preventive Medicine." Nicholson J. Eastman. New International Clinics, 1942, **1**, Series 5.

"The Medical Reserve Officer of the United States Navy." Ernest R. Eaton. New York State Journal of Medicine, January 1, 1941.

"Parenteral Replacement of Protein with the Amino-Acids of Hydrolyzed Casein." Robert Elman. Annals of Surgery, October 1940.

"Cancer of the Breast." Joseph F. Elward and Joseph F. Belair. Virginia Medical Monthly, August 1939.

"A Study of the Mortality Rate and Complications Following Therapeutic Malaria." Theodore C. C. Fong. Southern Medical Journal, November 1937.

"The Diathermy Treatment of Dementia Paralytica." Theodore C. C. Fong. Medical Record, May 6, 1936.

"The Treatment of Neurosyphilis." Theodore C. C. Fong. Military Surgeon, June 1936.

"Therapeutic Quartan Malaria in the Therapy of Neurosyphilis among Negroes." Theodore C. C. Fong. American Journal of Syphilis, Gonorrhea, and Venereal Diseases, March 1940.

"The Premature Infant." Morris Gleich. Archives of Pediatrics, January 1942.

"Polypoid Bronchial Tumors." Alfred Goldman. California and Western Medicine, September 1940.

"Observations of Tuberculosis Cavities with Special Reference to Transpleural Decompression." Alfred Goldman. Diseases of the Chest, June 1941.

"Polypoid Bronchial Tumors." Alfred Goldman and H. Brodie Stephens. Journal of Thoracic Surgery, February 1941.

"A Postoperative Follow-up Study of Four Hundred and Sixty-nine Thyrocardiac Patients." Arthur M. Greene and Lewis M. Hurxthal. New England Journal of Medicine, 1941, **225**, 811.

"The Treatment of Delayed Menstruation with Prostigmin." L. L. Grossmann. Western Journal of Surgery, Obstetrics and Gynecology, February 1942.

"The Use of Sodium Sulfanilate in Certain Urological Conditions." William P. Herbst. Urologic and Cutaneous Review, 1941, **45**, No. 6.

"The Significance of Milk Control in a Public Health Program." Arthur Parker Hitchens. Pennsylvania Association of Dairy Sanitarians' Report, 1940.

"Eye Worm (Thelazia Californiensis) Infection in Man." George N. Hosford, M. A. Stewart, and Edward I. Sugarman. Archives of Ophthalmology, June 1942.

"The Medical Service at the First Army Maneuvers of 1940 with Special Reference to the Work of the First Evacuation Hospital." John L. Kantor. Military Surgeon. May 1941.

"The Management of Chronic Ulcerative Colitis." Everett D. Kiefer. Journal of the Omaha Mid-West Clinical Society, January 1942.

"Organization of a Medical Society Prepayment Plan." Committee on Prepaid Medical Costs Insurance of the Massachusetts Medical Society; Dr. James C. McCann, *Chairman*. Medical Care, April 1942.

"Massachusetts Medical Service Corporation: Evolvement of the Committee on Prepaid Medical-Care Costs Insurance." New England Journal of Medicine, 1941, **225**, 736; "Additional Recommendations of the Committee on Prepayment Medical-Care Costs Insurance for the Government of the Massachusetts Medical Service Corporation." New England Journal of Medicine, 1942, **226**, 436.

"Congenital Anomaly of the Left Femur." Julius S. Neviaser. Journal of Bone and Joint Surgery, April 1933.

"Mingo County (W. Va.) Medical Society, Inc. vs. Dr. Szin Mos Eisen Simon (Opinion of Court)." West Virginia Medical Journal, September 1942.

"War Neurosis." John Sinclair Perry. Journal of the National Medical Association, March 1942.

"Developments in Pediatrics in the Past Quarter Century." Grover F. Powers. Yale Journal of Biology and Medicine, October 1939.

"The Treatment of Alcoholism." Merrill Moore. The Doctor and Od Quarterly, July 1940.

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WILLIAM MERCER SPRIGG, M.D.
(1864–1943)

Dr. William Mercer Sprigg, one of Washington's best known physicians, died March 6, 1943, at Doctors Hospital after a brief illness. He had practiced medicine and surgery in the District of Columbia continuously since 1885, a span approaching sixty years. He specialized in obstetrics and gynecology, serving at one time as Associate Professor of Obstetrics at Georgetown University School of Medicine. For many years he was chief of the obstetrical service of Columbia Hospital.

Dr. Sprigg was born in Petersburg, Virginia, April 3, 1864, the son of James Cresap Sprigg and

Lucy Addison Sprigg. In Washington he received his medical education, graduating from Columbian College, now George Washington University, in 1885. He also held the degree of Doctor of Laws from National University School of Law, which he received in 1924.

Dr. Sprigg became an Active Member of the Medical Association of the District of Columbia in 1887 and of the Medical Society in 1889. He held many offices in the Society during his lifetime, including the highest office, that of President, during 1936–37. He was a regular and faithful attendant at meetings up to within a few weeks of his death. Life Membership was conferred upon him, January 1, 1929.

William Mercer Sprigg, M.D.

His professional affiliations included the American Medical Association, of which he was a Fellow, the Southern Medical Association, the Washington Gynecological Society, and the American Therapeutic Society. He was one of the leaders in the movement which led to the construction of Doctors Hospital and Medical Center, serving on the Board of Directors of the Columbia Medical Building Corporation, the Washington Medical Building Corporation, the Columbia Operating Corporation, and Doctors Hospital.

Despite his years, Dr. Sprigg was more active than physicians many years his junior. He retained a youthful enthusiasm which never flagged and was highly regarded as a physician by his many friends in the medical profession.

Surviving are his wife, Mrs. Lucy Page Sprigg, and one daughter, Mrs. Joseph W. Hazell of Washington; a brother, Cresap Sprigg of Baltimore, and two sisters, Mrs. Arthur Seeligson and Mrs. Jones R. Gordon, both of San Antonio, Texas.

Dr. and Mrs. Sprigg resided at 35 Quincy Street, Chevy Chase, Md. He maintained his office at 1801 Eye Street until his death.

WILLIAM A. APPLEGATE, M.D.
(1857–1943)

Dr. William A. Applegate, an Associate Member of the Medical Society of the District of Columbia since 1921, died December 18, 1942. He resided at Coster in Calvert County, Maryland.

Dr. Applegate was born November 10, 1857, at Yellow Springs, Ohio. After graduating from Harvard Medical College in 1882, he practiced medicine in Chattanooga, Tennessee, until 1905. On March 15, 1905, he was appointed Chief Surgeon for the Southern Railway System, moving to the headquarters of the Railway, Washington, in December of the same year. He continued in this position until he retired in 1937.

He is survived by his wife, Mrs. Edith F. Applegate.

(*Continued from page 163*)

Antarctic Expedition (1930), Consulting Veterinarian, National Zoölogical Parks, Washington, Veterinarian to the District of Columbia, and Director of the Hospital for Animals, Washington; Dr. Eloise B. Cram, Senior Zoölogist, United States Public Health Service; Mr. Irving A. Tennyson and Mr. David L. Maxwell, well known Washington pharmacists who have held numerous positions including the presidency and vice presidency, respectively, of the District of Columbia Pharmaceutical Association; and Father David V. McCauley, S.J., Regent and Dean of the School of Medicine of Georgetown University.

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"PRIMARY ATYPICAL PNEUMONIA"[*]

A Report Based upon a Study of Two Hundred and Fifty Cases

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THIS preliminary report deals with the study of 250 cases of a syndrome, which, for the want of a better name, has been variously termed "acute diffuse bronchitis," "acute interstitial pneumonitis," "acute pneumonitis," "virus pneumonia," "primary atypical pneumonia," etc. This clinical entity has purposely been referred to as a syndrome, rather than as a specific disease because, first, several agents have been recovered from cases clinically similar and, second, because of the lack of pathologic data, or conformity, which might be used to set it aside.

Gallagher,[1] reported an outbreak of "bronchopneumonia" in a group of schoolboys that, in retrospect, approached what is known today about primary atypical pneumonia, but it was not until Reimann,[2] in 1938, called attention to a respiratory disease with pneumonic infiltration, and from which was retrieved a pneumotropic virus, that the clinical recognition of this syndrome began. Although frequent reports have appeared in the literature since that time referring to this syndrome, there has been little knowledge gained regarding its etiology, less concerning its pathology, and none in reference to specific therapy.

ETIOLOGY

In an attempt to recover an etiologic agent, many viruses have been isolated from cases which clinically were those of primary atypical pneumonia. Agents antigenically related to psittacosis have been retrieved from patients previously exposed to pigeons. Meyer[3] calls these cases "ornithosis," in contradistinction to true psittacosis. The virus of meningopneumonitis and of lymphogranuloma venereum[4] have been isolated, and in the latter instance the Frei test was found to be positive. Reimann[5] states that in 8 cases of virus pneumonia the complement fixation reaction for psittacosis was moderately positive in 3 and strongly positive in 1. In addition to the viruses mentioned above, those of chickenpox, influenza, and lymphocytic choriomeningitis may be included in this group of possible etiologic agents.

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[*] This designation, commonly used, is objectionable, since a syndrome is referred to, and "syndrome" implies typical. In fact, the clinical description is as typical as that of pneumococcal pneumonia. The designations "acute interstitial pneumonitis" or "virus? pneumonia," although probably not adequate, are preferable.—ED.

PATHOLOGY

Because of the low mortality, a knowledge of the pathology entailed is restricted. The reports of Kneeland and Smetana[6] describe lesions which are similar to those of bronchopneumonia or to those descriptions of known virus infections, and appear, therefore, to be in no way specific for this syndrome. The pneumonitis is interstitial mainly.

INCIDENCE

An estimation of the incidence of this syndrome is difficult. It appears that many more cases have been missed than the number actually recognized. This is evidenced by the number of cases first suspected from roentgenograms made of persons undergoing routine physical examination. Upon questioning, these patients admitted only to a recent slight indisposition or to a mild "grippy" sensation, which had not been of sufficient intensity to demand medical consultation. An actual increase in the number of cases has apparently taken place since late summer of 1942. Prior to that time the ratio of pneumococcal pneumonia to virus pneumonia was predominantly in favor of the pneumococcal variety, but since then the ratio has more than reversed itself. It appears, finally, that for years past many cases of "flu" or "grippe" might well have been primary atypical pneumonia not recognized because the negative physical examination of the chest did not call for an X-ray examination, a procedure which is of paramount importance in the diagnosis of this syndrome.

SYMPTOMS AND SIGNS

Just as the sudden onset with a shaking chill, fever, chest pain, and expectoration of rusty sputum is typical of pneumococcal pneumonia, so is the insidious onset with chilly sensation (no true chill), generalized aching, malaise, and a nonproductive, barking cough characteristic of primary atypical pneumonia. Following this insidious onset the complaints become progressively more intense and the headache which at first was generalized becomes retrobulbar and severe, being described "as though someone were pushing my eyeballs out." In a number of cases epistaxis has been noted, either in the history or during the early course of observation. The cough which at first is dry and hacking later becomes productive only of clear, watery sputum that may be blood-tinged but never rusty nor resembling prune juice.

Inspection reveals a person who is in no apparent distress and who shows no evidence of being toxic. The conjunctivae are commonly injected to a marked degree, but photophobia is not a complaint. The pharynx is often found to be very dry and inflamed. Meningismus is not rare and may be of such intensity as to suggest lumbar puncture. There is, very frequently, a slight duskiness noted of the mucous membranes and nail beds, but this duskiness does not progress to the point where it may be confused with cyanosis. Cyanosis has not been observed in any of these patients, even those with large areas of lung involved.

The amount of fever varies greatly. It is not surprising to record constantly normal temperatures throughout the hospital stay and it is unusual for readings to go over 102°F., but there have been a few cases with elevations to 104°F. It is significant that the pulse is always slow in proportion to the temperature, this relative bradycardia being so constant as to be helpful in differential diagnosis. The respiratory rate and amplitude are usually within normal limits.

Observation of these cases has shown that a complete lack, or a minimal degree, of physical signs in the chest is constant. It is disturbing to note the complete disproportion between the area and degree of pathology as evidenced by X-ray films in comparison to the impression obtained by physical examination. It is usual for the signs to consist only of a mildly impaired percussion note with an associated slight impairment of breath sounds. At first râles may not be elicited at all, or at the most, are fleeting and inconstant. It is only toward the middle, or the end, of the illness that subcrepitant râles to any degree make their appearance. It is at this point also that the dry, barking cough may become productive. Very frequently, however, these belated râles will remain evident for as long as 7 to 14 days following complete clearing of the roentgenogram. Another disturbing factor in a substantial number of cases has been a reversal of the more usual order in that the chest findings and history might strongly suggest primary atypical pneumonia but the roentgenograms revealed nothing until 24 to 48 hours later. This point warrants emphasis.

RESULTS OF LABORATORY EXAMINATIONS

Either a normal white blood cell count or a leukopenia has been practically constant. This is also true of the differential count and the Schilling index. The average white blood cell count is between 6,000 and 9,000 per cu. mm. In some cases the count is as low as 3,000 and in others as high as 15,000. This latter finding has been relatively infrequent and should not throw doubt on the diagnosis when the other criteria are present. Sputum typing by the Neufeld method and following injection into mice have consistently been negative. Routine blood cultures have also been negative without exception.

DIAGNOSIS

The criteria for diagnosis have been as follows:

1. History of "grippy" sensations
2. Minimal physical signs
3. X-ray examination
4. Normal or leukopenic white blood cell response
5. Irregular fever resolving by lysis
6. Relative bradycardia
7. Sputum negative for pneumococci
8. No response to sulfonamide therapy.

The main points in diagnosis are, therefore, the history, the minimal physical signs, and the X-ray appearance. It is difficult to believe that a positive diagnosis can be made, in the light of our present knowledge, without roentgenologic assistance. The X-ray film reveals a diffuse, infiltrating process into the lung parenchyma that is usually not confined to a single lobe. It has been observed only infrequently that the process would extend from the hilus toward the periphery in a fanlike manner, yet this picture has been often described in the past. It is not entirely necessary for the process to be infiltrating, since there have been several cases in which the area of involvement has approached a rather dense consolidation, although the physical findings remained minimal. Extension of the area is common, not only contiguously but to the opposite side. As this extension takes place the former area of infiltration may or may not subside. Therefore, from an X-ray standpoint also, the syndrome is justly termed "atypical."

COMPLICATIONS

There have been only 3 cases in this series in which complications have been noted. In each instance there developed a moderate pleural effusion which came on toward the end of the fastigium, and which ultimately subsided without intervention and with no apparent sequelae. No studies were made on the pleural fluid because there was no indication for thoracentesis. Each patient in this series returned 2 weeks after discharge for reëxamination, and late complications were not observed. There have been no deaths in this series. Furthermore, complications have not been noted following the routine use of sulfonamides during the early part of the treatment.

TREATMENT

Because the physical findings and the admission X-ray appearance could readily be manifestations of an atypical pneumococcal pneumonia and because direct Neufeld typing sometimes is negative even though pneumococci are actually present (as evidenced by positive mouse inoculation), sulfonamide therapy was instituted on each patient immediately upon the collection of sputum and the withdrawal of blood for culture. The dosage of the sulfonamide (usually sulfadiazine) consisted of the oral administration of 4 grams at once, followed in 2 hours by 2 grams, then 1 gram every 4 hours, day and night. Blood sulfonamide levels were determined routinely, the morning after admission. This therapy was continued for 72 hours. If at the end of that time pneumococcal typing and mouse inoculation were negative and the temperature had shown a tendency to decline, and a normal or leukopenic white count was obtained, the drug was discontinued. This routine sulfonamide therapy on each patient admitted with pneumonia has been justified, since there have been several cases which, on admission, gave the impression of being of virus type but subsequently were found to be pneumococcal of a significant type. In these cases, therefore, no time was lost in active attack.

Symptomatic treatment is all that can be offered in primary atypical pneumonia. The symptoms that demand greatest attention are the retrobulbar headache and the dry, hacking cough. These are alleviated by codeine and by steam inhalations. The remainder of the symptoms rapidly abate. Oxygen therapy is rarely necessary and then only in those cases in which pulmonary spread is rapid and the infiltrative process more dense than usual. Each patient was kept at complete bed rest until there had been 6 days of normal temperature or until the X-ray film showed clearing. Release from complete bed rest was slow, the patient being allowed out of bed for short intervals each day until at the end of 7 days he had the liberty of the ward. Another 7 days of moderate activity was the rule before discharge from the hospital. Hence, 7 to 14 days of fever, 6 days of normal temperature, 7 days sitting up, and 7 days of moderate activity resulted in an average hospitalization of between 27 and 34 days. This lengthy convalescence is believed to be a major factor in the lack of serious complications in this series.

COMMENT

"Primary atypical pneumonia" should be called a syndrome. The etiologic agent may be one or more of several viruses, and the clinical signs and symptoms form a bizarre pattern. Clinically, a definite diagnosis can be made, but only through totalling several factors and not by any single finding or procedure. Exclusion of closely simulated diseases, particularly pneumococcal pneumonia, is paramount. The statement made by Goodrich and Bradford[7] that "diagnosis by exclusion alone is seldom necessary" cannot be agreed with. There has been dissention concerning the use of sulfonamides in virus pneumonia. Unfortunately the disease in the early stage cannot be definitely diagnosed, and one is justified in giving the drug until it has been shown that pneumococcal pneumonia does not exist, since early sulfonamide therapy is indicated in cases of atypical pneumococcal pneumonia. The great benefit thus derived in such cases far outweighs any possible (probably remote) complication from the drug itself. Furthermore, the great majority of sulfonamide complications are not serious. Therefore, it seems that there is no alternative but to give a sulfonamide routinely until a definite diagnosis of primary atypical pneumonia can be made. This routine therapy at the onset of the disease might have some beneficial effect upon possible secondary bacterial invasion.

(Continued on page 211)

THE TREATMENT OF INFECTIONS OF THE CERVIX, VAGINA AND VULVA WITH AN ALLANTOIN-SULFANILAMIDE-LACTOSE OINTMENT*

A Preliminary Report

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THE time-tested contribution by Adair and Hesseltine[1] of lactose in the treatment of vaginitis, the report of Fields and Weinstein[2] on the local use of sulfanilamide in chancroidal lesions, observation of the remarkable results of Veal and Klepser[3, 4] with allantoin-sulfanilamide ointment in infected wounds, treatment of gonorrhea in women with sulfanilamide-lactose suppositories by Bickers,[5] and our own experience[6] with the local application of sulfanilamide powder in venereal lesions, suggested the search for a more satisfactory method of treating ulcerative infections of the female lower genital tract. With the coöperation of the Medical Research Division of the National Drug Company, various concentrations of sulfanilamide and lactic acid were tried before an ointment containing 2 per cent allantoin, 15 per cent sulfanilamide, and 5 per cent lactose in a special greaseless base buffered to a pH of 4.5 with lactic acid was decided upon as the most effective.

Expression of the ointment through an applicator into the vaginal vault was found to be a very satisfactory method of application. Previous experiments with sulfanilamide powder insufflation and suppository technic were more time-consuming and less efficient. Two drams of the ointment applied twice daily were enough to keep all areas of the vagina and vulva anointed. With this amount there was not enough discharge of the ointment to require the use of tampons or vulval pads. The preparation is odorless and has no staining properties.

During the past 8 months, the allantoin-sulfanilamide-lactose ointment has been used on the following ulcerative lesions of the exocervix, vagina and vulva: gonorrheal cervicitis and vaginitis, vaginal and vulval condylomata, chancroids, acute trichomonas vaginalis vaginitis, granuloma inguinale, lymphogranuloma venereum, postcauterization wounds of the cervix, and yeast vulvovaginitis. A total of 68 patients have been treated with this preparation. All patients with venereal lesions and a majority of those with nonvenereal infections have been treated in the hospital under close observation. Not one patient has shown any local or systemic sensitivity to the preparation. While receiving applications of the ointment, the patients have maintained sulfanilamide levels of less than 1 mg. per 100 c.c. of blood. The bacteriostatic action of the sulfanilamide, as well as the tissue-stimulating effect of the allantoin and lactose, may be considered essentially local.

The therapeutic results obtained with allantoin-sulfanilamide-lactose vaginal ointment seem to justify a preliminary report.

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* From the Department of Obstetrics and Gynecology, Gallinger Municipal Hospital, Washington, D. C.

In 14 patients with acute gonorrhea, 7 were treated entirely by local applications of this ointment. After the first 3 days of treatment, all 7 patients were free of discharge. After 1 week of local therapy, followed by a week without treatment, 3 repeated cultures taken on alternate days were negative. In this group, 1 patient returned 4 weeks and another 4 months after leaving the hospital with recurrent gonorrheal infections. The other 7 patients had gonorrhea involving either the tubes or vulvovaginal glands. Local applications of the ointment for as long as 20 days failed to clear up infections involving the tubes, endocervix, and glands of the urethra and vulva. It was necessary, in this group, to give sulfathiazole by mouth, in addition to the local vaginal therapy, in order to obtain repeatedly negative cultures. In several instances, the lower genital tract showed evidence of healing before the symptoms of acute gonorrheal salpingitis subsided.

Fifteen patients with vaginal and vulval acuminate condylomata were treated before and after fulguration with the allantoin-sulfanilamide-lactose ointment. Thirteen of the patients were pregnant. Within 3 to 7 days of treatment secondary infection was reduced sufficiently to safely justify fulguration or excision of the condylomata. The areas of fulgurated vaginal and vulval mucosa healed much more rapidly than previously observed with other forms of therapy.

Eight patients with different degrees of chancroidal infection showed remarkable responses to the local application of allantoin-sulfanilamide-lactose ointment. Complete cures occurred in every instance from 3 to 21 days after beginning treatment.

In 18 patients with acute trichomonas vaginitis, the infestation was arrested and the vaginal mucosa was restored to normal with bi-daily applications of the ointment for a period of 3 to 10 days. There was no evidence to suggest that this form of treatment had any more lasting curative qualities than the many other methods of managing acute trichomonas vaginitis. Two patients had recurrent trichomoniasis several weeks after the treatment was discontinued. The simplicity of the application, the rapid relief of symptoms, and the quick restoration of the vaginal mucosa to normal are points favoring the use of this preparation in trichomonas vaginitis.

Two patients with ulcerative lymphogranuloma venereum and 3 patients with granuloma inguinale were treated with local applications of the allantoin-sulfanilamide-lactose ointment. Surface infections were rapidly reduced to a minimum. Two of these patients had delivered immediately after admission to the hospital. They remained afebrile during their postpartum periods.

The redness and discharge from 5 postcauterization wounds of the cervix were reduced and healing seemed to be facilitated by application of the ointment.

Three patients with yeast vaginitis were not improved by local applications of the ointment. Since the preparation was acid in reaction and possessed no fungicide, there was no reason to expect infections resulting from monilia to respond to this treatment.

SUMMARY

Surface infections of the exocervix, vagina and vulva, with the exception of vulvovaginal mycoses, respond to local applications of an ointment containing 2 per cent allantoin, 15 per cent sulfanilamide, and 5 per cent lactose in a special greaseless base buffered to a pH of 4.5 with lactic acid. Expression of the ointment through a tube into the vaginal vault is a quicker and more efficient method of applying local medication than by insufflation or suppository technic. The ointment is odorless and has no staining properties. Its action is entirely local. This preparation is not curative for such lesions as condyloma acuminatum, granuloma inguinale, and lymphogranuloma venereum, but it offers a relatively rapid means of reducing nonspecific, secondary infection to a minimum. Inguinal buboes and gonorrheal infections in the remote recesses of the urethra, endocervix, tubes, and vulvovaginal glands are influenced by this form of local therapy only in so far as they are affected by eradication of surface infection of the cervix, vagina, and vulva. Allantoin-sulfanilamide-lactose ointment presents a convenient and rapid method of treating trichomonas vaginalis vaginitis. Chancroids are rendered asymptomatic and the areas of ulceration heal rapidly with very little scarring. The gratifying results obtained with allantoin-sulfanilamide-lactose vaginal ointment recommend it as a convenient and effective method of treating many ulcerative lesions of the lower genital tract of the female.

N.B. I wish to thank the Medical Research Division of the National Drug Company for preparing and supplying the ointment used in this study.

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Report on studies on passive immunity and active immunity to tetanus. Information on several important questions concerning the treatment and prevention of tetanus, particularly as regards the duration of passive immunity and its effects on active immunity, is reported in *The Journal of the American Medical Association* for April 10, 1943, by Jean V. Cooke, M.D., St. Louis, and F. G. Jones, Indianapolis. Their report is based on observations on the immunization of children with clinical tetanus and of normal children. Passive immunity is that which depends on defensive factors not originating in the individual protected, but which is acquired by injection of immune substances produced elsewhere. Active immunity is that which is obtained by the active participation of a person's own body in producing immune substances—antibodies or antitoxins.

From their study of active and passive tetanus immunity on 39 children on whom more than four hundred tetanus antitoxin measurements were done, the two authors found that although passive immunization with the usual prophylactic dose of 1,500 units or less produces an immunity of only approximately three weeks, larger doses cause a much more prolonged immunity.

In 4 children with clinical tetanus it was observed that antitoxic immunity did not follow recovery from the disease.

The two authors report that "A passive immunity [to tetanus] can be converted into an active immunity by toxoid injections [a toxoid is a toxin, the poisonous qualities of which have been destroyed but which is still capable of inciting the production within the body of protective substances against that specific toxin]. It was observed, however, that this transition can be produced as readily and as rapidly when the initial active toxoid injection is delayed several weeks as when it is started simultaneously with the antitoxin injection [which creates passive immunity]. After passive immunization with 10,000 units of antitoxin and with toxoid injections at two week intervals an active immunity developed in from eight to twelve weeks regardless of whether the first toxoid was given simultaneously with the antitoxin or whether it was delayed two, four or six weeks. . . ."

The authors say that their observations tend to refute the value of simultaneous injection of antitoxin and toxoids in the production of active tetanus immunity and show that a delay of active immunization from two to four weeks following the antitoxin injection is indicated.

ANURIA CAUSED BY TRANSFUSION REACTIONS DUE TO ANTI-RH AGGLUTININS IN PREGNANT WOMEN*

Report of Two Cases

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BERNARD E. NUNEZ, M.D.
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SEVERE transfusion reactions have been known to occur in individuals receiving blood from donors having apparently compatible blood as well as from those with definitely incompatible blood. For instance, in 1941 Daniels, Leonard and Holtzman[1] reported renal insufficiency developing after blood transfusions in 13 cases collected in Washington, D. C. in which the blood used was proved definitely incompatible in only 4. Thus it appears that there are factors other than those caused by incompatibilities among the four blood groups that are responsible for such reactions.

One such factor was discovered in 1940, when Landsteiner and Wiener,[2] and Wiener and Peters[3] showed that a human corpuscular factor capable of stimulating dangerous agglutinins corresponds with one found in rhesus monkeys. They designated this the Rh factor. These authors stated that the Landsteiner factors played no part in reactions caused by incompatibility of this new factor; they explained the phenomenon as the response of an Rh− individual to the injection of Rh+ blood which caused the formation of an anti-Rh agglutinin. As the result of studies made with anti-rhesus immune serum they estimated the frequency of distribution of agglutinogen Rh in the general population as approximately 85 per cent Rh+ and 15 per cent Rh−. Repeated transfusions from Rh+ to Rh− individuals are therefore potentially dangerous, but the vast number of successful single transfusions that have been performed in ignorance of the rhesus factor indicate the rarity of the complication at a first transfusion. The existence of the rhesus factor has been confirmed by Mayor and Vogel[4] (1941).

It has also been shown that this complication may arise even with a first transfusion in cases of pregnancy before, during, or soon after delivery. Landsteiner and Wiener[5] (1941) explained this on the grounds that an Rh− mother may produce an Rh+ child if the father is Rh+, and that during pregnancy she may develop anti-Rh agglutinins in response to the fetal agglutinogen. Therefore, ideally, Rh− recipients should be transfused from Rh− donors, especially during pregnancy.

In 1938 Levine and Katzin[6] analyzed 12 cases in which atypical agglutinins could be demonstrated in pregnant women and revealed the significant fact that the patients had obstetrical histories characterized by a number of complications such as toxemia, macerated fetus, repeated abortions and stillbirths. Later (1941) Levine, Katzin and Burnham[7] reported 5 cases of women who gave birth to infants with erythroblastosis fetalis and whose blood contained atypical agglutinins which paralleled the anti-Rh agglutinin of Landsteiner and Wiener. Levine et al[8, 9] (1941) put forward the explanation that the hemolysis causing erythroblastosis fetalis was the result of isoimmunization of the mother who is Rh− to the Rh+ factor of the fetal blood. It has long been known that hemagglutinins pass the placental barrier. Thus the mother becomes immunized by the fetal antigen and produces anti-Rh agglutinins which wreak havoc with the fetal blood. In support of this theory investigations have shown that of 111 mothers known to have been delivered of infants with erythroblastosis fetalis, 101 were Rh− and 10 Rh+; in the latter series atypical agglutinins were found in 1 case. Anti-Rh agglutinins could be demonstrated in about 50 per cent of such mothers when tests were made within 2 months of delivery, after which time the titer might well have declined below the detectable point. These facts show the importance of these recently discovered hemagglutinins and the necessity of remembering them when the question of blood transfusion arises in cases of pregnant women.

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* Read in part before the Society, March 17, 1943, at a panel discussion of reactions following blood transfusions and the use of blood plasma and its substitutes.

Of the reactions caused by transfusions with incompatible blood the most dreaded is anuria following a severe hemolytic crisis. The anuria has been assumed to be caused mainly by the deposition of acid hematin granules in the renal collecting tubules. However, another unknown and more important renal factor may play a part. Prerenal factors are also important and include reduced blood volume and fall in blood pressure, anemia with resulting renal anoxia, and reduction of plasma proteins with lowering of the osmotic pressure of the blood. The mortality is between 50 and 60 per cent. In the fatal cases the kidneys are large, swollen and congested. The sections show interstitial edema, leukocytic infiltration, dilatation of the tubules, and degnerative changes of the tubular epithelium. Reddish-brown granular material, probably acid hematin, may fill the lumens of many of the tubules.

The usual symptoms of the hemolytic crisis preceding anuria, and which often begin during the transfusion, are chill, fever, tachycardia, temporary fall of blood pressure, nausea and vomiting. Jaundice may or may not appear with an indirect van den Bergh reaction only. Anemia and a polymorphonuclear leukocytosis rapidly develop. The small amount of urine obtainable contains red blood cells and hemoglobin. There may be little or no urine for several days. Death occurs in the fatal cases in 7 to 13 days, with the symptoms of uremia, including hiccup, irrationality, twitching, drowsiness and coma. However, there are features that differ from most cases of uremia due to nephritis. The blood pressure rises only moderately, retinitis does not develop, and the blood nonprotein nitrogen rarely rises above 150 mg. per cent or the blood creatinine above 10 per cent.

The purposes of this paper are to emphasize the importance of the Rh factor in producing this transfusion accident and to demonstrate the problems involved in the therapy, as exemplified in a report of 2 recent cases treated similarly, in 1 of which recovery occurred and in the other death.

Curative treatment is based upon the known factors causing or abetting the anuria. An attempt is made to force liquid through the renal tubules and to dislodge their granular plugs by producing a relative hydremia. For this purpose intravenous infusions of 5 per cent glucose solution in physiologic saline solution or sterile distilled water are given in total amounts of 2,000 to 3,000 c.c. daily; compatible blood is transfused as obtainable in amounts of 500 c.c. every day or every other day, alternating with the intravenous administration of 500 c.c. of blood plasma, the objectives being to restore blood volume, oxygen carriers and plasma proteins. Restoration of plasma proteins is important in order to keep the infused liquids in the blood vessels and not to let them escape into the tissues. However, the opposite state of hypoproteinemia, namely hyperproteinemia, must be avoided, since the latter will tend to draw back into the blood stream the fluid that accumulates in the renal tubules. Theoretically it is advisable to determine the quantity of plasma proteins, but practically with the amounts of blood and plasma used hyperproteinemia would rarely be induced. The amount of saline injected naturally should be below the quantity lost in various ways. Roughly, saline and sterile aqueous solutions of 5 per cent glucose are given in about equal amounts. An occasional check of the blood chlorides may be advisable.

Short-wave diathermy treatments through the abdomen are probably of some value in improving renal blood flow, acting temporarily in the same manner as a sympathectomy. They may be given for half-hourly periods two or three times each day.

In spite of these attempts to force fluid through the renal tubules, improve metabolism of renal tissues and increase blood flow in the kidneys, the desired result may not be obtained and edema may develop. Then the amount of aqueous solutions introduced into the body should be reduced, but not too drastically.

It is believed that alkalinization of the blood will prevent the deposition of acid hematin in the renal tubules in cases of transfusion accident, but as a routine procedure it is probably not advisable to use this precaution. After the hemolytic episode has occurred, however, no amount of alkali seems to make any difference.

REPORT OF CASES

Case 1.—Mrs. T. W., a white married woman, aged 38 years, was admitted to Georgetown University Hospital on March 4, 1942, with the chief complaint of vaginal bleeding. Her last normal menstrual period began on December 12, 1941. On February 26, 1942 she became nauseated and weak, and following a chill passed some blood from the vagina. She went to bed for a week. During this period the vaginal bleeding was slight. On March 1, 1942 she had a very severe occipital headache and abdominal cramps. The next day she passed a 6 weeks' old fetus, and was given ergotrate, grains $\frac{1}{320}$, every 4 hours by her physician. She remained in bed only 24 hours, and when she got up there was a recurrence of the abdominal cramps without evidence of external bleeding. The pain increased and she finally passed a large clot, an event which was followed by profuse bleeding that persisted until she entered the hospital, where dilatation and curettage of the uterus was performed and the uterine cavity packed.

Physical examination on admission was not remarkable, but there were signs of a mild state of shock. Examination of the blood showed 53 per cent hemoglobin, 2,630,000 red blood cells and 11,500 white blood cells, with 80 per cent segmented forms, 3 per cent band forms and 9 per cent lymphocytes. A transfusion of 500 c.c. of blood from a professional donor was given. Both patient and donor were type 3 Moss and cross matching was carefully performed. However, it was later shown that the patient was Rh− and the donor Rh+. A severe reaction followed the transfusion with symptoms of headache, chills, pain in the back and joints, tachycardia of 120 and fever of 102°F. The urinary output decreased to a negligible quantity. Nausea and frequent attacks of vomiting followed for the next few days. Details of the clinical course are given in table 1.

Because the patient was still severely anemic, and the nature of the transfusion reaction had not at that time been determined, on March 9 another blood transfusion was given. A severe pyrogenic reaction followed this transfusion also, although it was later shown that the donor's blood was Rh−. Nausea and vomiting again followed. Slight icterus apparently accompanied both transfusion reactions. On March 12 the patient was definitely edematous, and in the next few days anasarca developed. On March 16 moist râles were heard at the bases of both lungs, and although the roentgenographic interpretation was passive congestion, pneumonia was suspected additionally because of recurrence of fever and cough. Consequently sulfadiazine was administered by mouth in doses of 1 gram every 4 hours for the first 24 hours, then 4 times during the second 24 hours and 3 times on each of the following 2 days. The patient was in an oxygen tent during this period. She improved remarkably so far as pulmonary signs, dyspnea, mild cyanosis and slight cough were concerned.

Although it was not specifically indicated, rapid digitalization was instituted on March 18. The patient had already begun to urinate well by this time. Diuresis actually began on March 15, and as the table shows was very gratifying thereafter. During the last few days of this period the patient was very restless and irrational but still coöperative. By March 22 she was beginning to eat a little. From that time on improvement was moderately rapid, and the patient was able to leave the hospital on April 8, still very weak and still very anemic,

DATE	LIQUID INTAKE	URINARY OUTPUT	EMESIS	BLOOD, C.C., I.V.	Rh FACTOR	PLASMA, C.C., I.V.	5% GLUCOSE IN H_2O, C.C. PARENT.	5% GLUCOSE IN SALINE, C.C. PARENT.	N.P.N., MG.	HB., %	R.B.C.	W.B.C.	URINALYSIS (CATHETERIZED)	B.P.	TEMP., °F.	PULSE	MEDICATIONS, ETC.
3- 4-42	1900	480	710	500	+					53	2,630,000	11,500		114/72	103	120	Ergotrate @ gr. 1/320 q. 4 hrs. for 6 doses
3- 5-42	1500	0	0							50	3,330,000	9,850			101	120	Patient started hiccoughing
3- 6-42	1780	100	640					1000							98.6	90	Bleeding profusely
3- 7-42	2080	100	270					1600							98.6	90	
3- 8-42	3080	180	Wangensteen inserted					2000	75					118/70	98.4	100	
3- 9-42	2000	150		450	–			1000	75	36	1,690,000	10,200		130/64	102	140	Severe reaction from transfusion
3-10-42	1800	60				250	1000	500	Chlorides 307						99	100	
3-11-42	1750	300				250	1000	1500	125	30	2,229,000	16,930	S.G. 1.011 Alb. 3+ W.B.C. 4+		100	110	
3-12-42	2000	165				250	1000	1000						140/80	100	100	Diathermy—30 minutes over kidneys b.i.d. started
3-13-42	2750	180				250	2000	500					S.G. 1.010 Alb. 2+ W.B.C. 4+	140/60	100	110	
3-14-42	2470	240				270	1000	1200						140/70	100.4	120	B Complex, 3 c.c. i.m. daily Cantaxin, 2 c.c. i.m. daily
3-15-42	2520	685				250		1900	105	50	2,640,000	13,000		140/60	100	100	
3-16-42	2960	1100				200	1500										
3-17-42	1790	2300				300		1000					S.G. 1.010 Alb. ± R.B.C. ±		101	120	Digifoline 3 c.c. q. 3 hrs. subcut. for 3 doses then 1 daily
3-19-42	825	5420							138	35	1,990,000	12,850			101.4	130	Sulfadiazine Gm. 1 q. 4 hrs. started Urophosphates gr. XV t.i.d.
3-20-42	1080	5590							84					118/68	101.6	120	
3-25-42	825	3260							37.7	66	2,640,000	7,500	S.G. 1.008 Alb. 2+ R.B.C. ± W.B.C. 2+	118/70	100.4	110	Feosol, 1 t.i.d. started
3-30-42															99.8	100	

but voiding normally. Because of the presence of pus cells in the urine urophosphates were prescribed, and because of the anemia Feosol was administered.

From the time of discharge the patient gradually regained her strength, and by May 22 she reported that her vision was still not clear, and that she could not write well because of slight incoördination. The hemoglobin was 81 per cent, the red blood cells numbered 3,990,000 and the white blood cells 7,450. The pulse rate was 100, and the blood pressure was 140/80. The urinalysis was normal. By June 24 the patient felt quite well, and was able to carry on normal activities about 80 per cent. The blood pressure was 145/80 and the pulse rate 80. The hemoglobin was 84.4 per cent and the red blood cells numbered 4,490,000. The urinalysis was normal. The patient has been seen every month since that time, and states that she feels as well as she ever did. She has no complaints. There are still some lapses in her memory, particularly in regard to the events of her illness. The blood pressure has ranged in the neighborhood of 140/80. The urinalysis has been completely normal. Phenolsulphonphthalein and urea clearance tests performed on April 26 and April 27, 1943 showed in the former 45 per cent return of the dye in the first hour and 25 per cent return in the second hour (total 70 per cent), and in the latter 67.7 per cent of urea cleared.

This patient's obstetrical history is very interesting, particularly in view of the fact that she is Rh−. She had had 7 previous pregnancies. Number 1 was a spontaneous abortion (1933) at 2½ months' gestation. Number 2 was a full-term normal infant (1934), and there had been some bleeding about the third month. Number 3 was a spontaneous abortion (1936) at three months' gestation. Number 4 was a spontaneous abortion (1937) at 6 weeks' gestation. Number 5 was a full-term normal infant (1938) with some vaginal bleeding at about the third month. Number 6 was a full-term infant (1940) with meningocele and spina bifida of the last 2 lumbar vertebrae; this child has developed hydrocephalus and is unable to walk. Vaginal bleeding also occurred at about 3 months with this pregnancy. Number 7 was a full-term infant (1941) that died after 12 hours. This infant had spina bifida, meningocele and clubbed feet. There was vaginal bleeding at about 6 months with this pregnancy.

Case 2.—Mrs. J. S. K., a white married woman, aged 34 years, entered Georgetown University Hospital on October 26, 1942, because of vaginal bleeding. She was 5 months' pregnant, her last menstrual period having occurred in May 1942. Pregnancy had been uneventful until October 15, 1942, when there was a sudden gush of blood from the vagina while she lay in bed. She remained in bed but continued to bleed moderately. However, in the few days preceding admission the bleeding increased.

The past history was essentially negative except for the obstetrical part. There had been 6 previous pregnancies. Pregnancy number 1 was normal with delivery of a normal infant. Pregnancy number 2 was normal, but the infant died several days after birth. Pregnancy number 3 was normal, except that the mother had pneumonia during pregnancy, and the infant died 2 days after birth with pneumonia. Pregnancy number 4 resulted in a miscarriage at 6 months. Pregnancy number 5 resulted in miscarriage also at 6 months. With pregnancy number 6 miscarriage occurred at 4½ months.

Physical examination revealed a well-nourished patient who was pale and weak. Her temperature was 99°F., the pulse rate was 120 per minute, and respiratory rate was 24 per minute. The blood pressure was 98/58. The abdomen was swollen because of the 5 months' pregnancy. There was profuse vaginal bleeding. The hemoglobin was 69 per cent, the red blood cells numbered 3,300,000 per cu. mm. and the white blood cells 12,950.

On October 29, 1942, a dead male fetus was expelled. This event was followed by a severe hemorrhage with the loss of approximately 2,000 c.c. of blood. The blood pressure at this time was 80/40. Pituitrin was given but the placenta was not expelled. Two hours after delivery the hemoglobin was 31 per cent, the red blood cells numbered 1,280,000 per cu. mm. and the white blood cells 47,500. A transfusion of 500 c.c. of blood type O was given. The patient belonged to group A. The donor in this instance was later found to be Rh−, as was the patient. A reaction did not follow this transfusion. In the evening, because the patient was still bleeding and had not expelled the placenta, uterine dilatation and curettage was performed. This procedure was followed by a transfusion of 500 c.c. of blood donated by the husband who was type O, and who later was found to be Rh+. There were no definite immediate signs of reaction. However, during the night the patient's temperature rose to 102°F. and the pulse rate to 140 per minute, and the next day there was slight jaundice. From that time on very little urine was obtained.

Treatment was instituted in the same manner as for the patient in case 1. The details of the clinical course are shown in table 2. However, the patient became more and more edematous, developed massive edema of both lungs with signs of atelectasis of the right lower lobe, and died 14 days after the second transfusion. During the last few days very little food was ingested and hiccough was a prominent symptom. The patient was moderately stuporous and irrational. During that period 5 more blood transfusions were given with Rh−

TABLE 2.—*Essential Data of Case 2*

DATE	LIQUID INTAKE, C.C.	URINARY OUTPUT, C.C.	BLOOD C.C., I.V.	Rh FACTOR	PLASMA C.C., I.V.	5% GLUCOSE IN H_2O, C.C. PARENT.	5% GLUCOSE IN SALINE, C.C. PARENT.	N.P.N., MG.	CREATININE, MG.	HB., %	R.B.C.	W.B.C.	URINALYSIS (CATHETERIZED)	B.P.	TEMP., °F.	PULSE	MEDICATIONS, ETC.
10-29-42	3260	450	500 500	− +			2000			31	1,280,000	47,500	S.G. 1.018 Alb. 3+ W.B.C. 4+	98/58	102 (oral)	135	Morphine gr. $\frac{1}{6}$ q. 4 hrs.
10-30-42	4020	190	500	−		1500							S.G. 1.022 Alb. 4+ Benzidine 4+ R.B.C. ±	100/60	98 (oral)	84	
10-31-42	4730	0			500	3000		113.5	5.94					118/40	98.6 (oral)	110	Diathermy over kidneys 30 min. t.i.d. started
11- 1-42	4760	0			500	1000	1000	130	7					120/40	98.6	100	$NaHCO_3$ grs. XV q. 4 hrs. Veronal, grs. X suppositories
11- 2-42	4150	45			500		2900			25	980,000	29,000	Alb. 4+ W.B.C. 4+ R.B.C. 1+	110/50	100.5 (axilla)	120	Calcium gluconate 10% i.v. for hiccoughs
11- 3-42	3030	30	500	−		2900							Alb. 4+ W.B.C. 4+	130/80	100.4 (axilla)	100	Oxygen by nasal catheter Thiamin 20 mg. Nicotinic acid 100 mg.
11- 4-42	5430	53	500	−	500	2300		150	7.5	30	1,420,000	37,950		130/80	99.9 (rectum)	140	Coramine amps. 2 i.m. Digifoline amps. 2 i.v.
11- 5-42	2400	30			500		1000			40	2,060,000	21,700	Alb. 4+ W.B.C. 4+	140/82	99.8 (rectum)	120	
11- 6-42	2970	22	600	−	500	500	500	120	5	40	2,120,000	18,800	Same	140/80	99.6 (rectum)	90	Oxygen tent started
11- 7-42	2750	60			500	500	500							160/75	100 (rectum)	92	
11- 8-42	2040	150			500		1000	133.9	6.6				Alb. 2+ W.B.C. 3+ R.B.C. 1+	145/65	100 (rectum)	90	Coramine amp. 1 i.m. q. 4 hrs.
11- 9-42	2220	75	600	−	500	1000		3.10 mg. albumin 3.15 mg. globulin						90/40	101 (rectum)	100	
11-10-42	1000	240					1000						Alb. 3+ R.B.C. 1+ W.B.C. 2+	90/40	100 (rectum)	115	
11-11-42	1000	60					1000	161	8.82	63	3,270,000	28,550	Alb. 2+ R.B.C. 1+ W.B.C. 2+	90/40	100 (rectum)	90	
11-12-42		60											No casts reported at any time		99.8 (rectum)	100	
Total.....	47,860	1465	3700		4500	12,700	10,900										

donors without any reaction more than a mild pyrogenic one. Great difficulty was encountered in securing donors of the proper type who were Rh−. Probably more than 100 individuals were tested.

Necropsy revealed anasarca and a general waxy pallor of the skin. Each pleural cavity contained approximately 2,000 c.c. of straw-colored fluid. The pericardial cavity contained about 200 c.c. of this fluid, and the peritoneal cavity about 10,000 c.c. The right lung was completely collapsed. The left lower lobe was partially atelectatic, and the rest of the left lung was congested and contained scattered areas of pneumonitis. The heart was not hypertrophied or dilated. The liver, kidneys and spleen were moderately congested. The kidneys were pale and moderately enlarged; their capsules stripped with ease. On section the pyramids were prominent because of the presence of black streaks near their apical portions. Microscopic section showed these streaks to be large deposits of granular substance in the collecting tubules, undoubtedly acid hematin. The blood vessels and glomerular tufts were engorged with blood. Between the layers of Bowman's capsule of most glomeruli there was a coagulated stringy fibrinous exudate. This same substance was present in many of the tubules, as well as between them. In some tubules red blood cells were found in clusters. Leukocytes and lymphocytes were found both within and between some of the tubules, and the tissue between the tubules was edematous. The epithelium of most of the tubules showed deposits of a colloid substance. The uterus appeared to be involuting normally. The adrenal glands showed a moderate degree of autolysis.

Comment

In both cases the hemolytic crisis that inaugurated the anuria was undoubtedly produced by the presence of anti-Rh agglutinins in the patient's blood. The reactions responsible occurred with transfusions of Rh+ blood into obstetrical patients with Rh− blood. Subsequently it was demonstrated that agglutination resulted when the bloods were cross-matched by the cold technic. Neither patient had had blood transfusions before. It seems probable, therefore, that the agglutinins had been developed in response to the fetal agglutinogen. Both husbands were Rh+, and it was possible that the fetuses were Rh+.

It is obvious that the ideal treatment of hemolytic nephrosis with anuria has not been developed, and perhaps it never will be. Consequently prevention is of the utmost importance. Both patients were treated in essentially the same manner, yet one of them died as the result of renal insufficiency. How to prevent the development of anasarca, which occurred in both cases, is a serious problem. In the case of the patient who recovered the edema fluid was rapidly eliminated. Apparently she has suffered no permanent renal damage.

The obstetrical histories of the two patients are almost identical, with mid-term miscarriages predominating. In one case 2 infants had serious developmental anomalies. Was the Rh factor responsible for the miscarriages and for the maldevelopment?

Conclusions

Transfusion accidents are so dangerous and our treatment of post-transfusion anuria so ineffective in many cases that it is extremely important to prevent them. Proper blood matching is the only solution, and special precautions must be taken in cases of pregnant and puerperal women. A presumptive test in the cold for agglutination due to the Rh factor should be done in the latter. Obviously blood grouping tests with potent anti-A and anti-B serums followed by cross-matching after incubation of tube preparations at 37.5°C. for 1 hour must be performed with great care. Levine et al[7] advise that it is safer to look for compatible donors among the patient's blood relatives than to use the husband. Unfortunately compatible Rh− donors of the same blood group are not easy to procure. Also, transfusions preferably should not be performed if the patient is under an anesthetic. Pre-transfusion alkalinization should be instituted if there is the slightest doubt of compatibility; the blood should be introduced very slowly, and the transfusion stopped at the first evidence of reaction.

(*Continued on page 212*)

PSYCHIATRIC PROGRAM AT NATIONAL TRAINING SCHOOL FOR BOYS*

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THE National Training School for Boys is unique in its position in the Federal Bureau of Prisons in that its population is limited exclusively to juveniles. Its organization has progressed on training school principles with the objective of reëducating delinquent boys so that they may be best able to function in society as normally adequate individuals. The treatment program has endeavored to bring into close relationship the physical and mental health services, the educational, recreational, religious and case work facilities, with a great deal of emphasis on the coöperative services of the community in the after-care program.

The National Training School for Boys serves those committed to the custody of the Attorney General and designated to the school under the Federal Juvenile Delinquency Act, as well as those sentenced by Federal Courts throughout the country and by the Juvenile Court of the District of Columbia. Approximately three fourths of the population, which averages around 400, are Federal offenders representing commitments from 30 different states and Puerto Rico and the other one fourth are local commitments. Besides the institutional care and treatment, the school is required to carry under supervision on parole the released cases from the District of Columbia.

The aims of the school program, as outlined by the Superintendent in his 1940 report to the Director of the Bureau of Prisons, are:

1. Clean, wholesome living conditions shall be provided for each boy.
2. Creative leadership in the cottage groups must be afforded through the kind of personnel capable of initiating and sustaining a boy's interest in social training and in educational and work assignments.
3. Constructive discipline, designed to further the sense of personal responsibility and self-reliance, shall be felt in every part of the school program. Punitive and retributive discipline, meted out without respect to the individual, cannot be tolerated.
4. Through the best classification technics available, individual programs will be devised and coördinated by the staff members. The educational objective is in the nature of prevocational training, but underlying all shop and study assignments is the effort to inculcate stabilizing habits of work.
5. There shall be a constant effort to protect boys from whatever harmful influences may be present in inmate groups, and conversely to bring to bear upon them such influences as assist in the formation of good inter-personal attitudes, social behavior and awareness.
6. They must be protected from impulsive acts of all kinds which ordinarily result in the lengthening of their official records, injury to their future, and further depredations against society.

Although lofty ideals are embodied in this ambitious program, they have to a large degree been attained. What is especially emphasized is that a normal psychology is being developed for normal boys.

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* Read before the Section on Neurology and Psychiatry of the Society, December 3, 1942.

A survey was made of those cases resident at the National Training School for Boys on June 30, 1941.

Table 1 shows that over half of the cases were divided between the Southern States and the District of Columbia.

TABLE 1

Residence

AREA	NUMBER	PER CENT
Southern States*	115	28
District of Columbia	105	25
Middle Western States	60	15
West of Mississippi River	49	12
South Atlantic States	47	12
North Atlantic States	23	6
Puerto Rico	9	2
Total	408	100

* Modal or typical category

Table 2 shows the racial distribution similar to that found in adult institutions.

TABLE 2

Race

RACE	NUMBER	PER CENT
White*	278	68
Negro	127	31
Indian	3	1
Total	408	100

* Modal or typical category

Tables 3 and 4 are self-explanatory.

TABLE 3

Delinquent Status before N.T.S.B. Commitment

STATUS	NUMBER	PER CENT
No previous arrests*	101	25
Probation only*	95	23
Probation and juvenile commitment	86	21
Arrests but neither probation nor commitment	56	14
Juvenile commitment only	47	12
Other	23	5
Total	408	100

* Modal or typical category

TABLE 4

Offenses Leading to Commitment

OFFENSE	NUMBER	PER CENT
Dyer Act*	185	45
Postal Violations	39	10
Internal Revenue Violations	38	9
T.P.A., Theft, Stealing, etc.	33	8
Forgery	29	7
Housebreaking, etc.	25	6
Miscellaneous	59	15
Total	408	100

* Modal or typical category

Table 5 shows an age distribution covering the period of adolescence and is rather sharply delineated from the behavior problems of a younger group and those of the typical adult offender.

TABLE 5

Age at Time of Commitment

AGE	NUMBER	PER CENT
Below 13	15	4
13–14	21	5
14–15	65	16
15–16*	109	27
16–17*	135	33
17–18½	63	15
Total	408	100

* Modal or typical category

Table 6 reveals that our group contains a considerably larger percentage of feeble-minded boys than is found in the general civil popula-

TABLE 6

Distribution of Intelligence Test Scores

I.Q. RANGE	NUMBER	PER CENT
60 or less	43	12
61– 70	60	16
71– 80	52	14
81– 90*	66	18
91–100*	81	22
101–110	35	10
111–120	17	5
121 or more	9	3
Total	363	100

* Modal or typical category

tion, though perhaps not a much greater proportion than would be found in a non-delinquent population of similar social status. However, feeble-mindedness is a very serious individual factor in delinquency. The complexity of the selective factors involved in delinquent groups makes it difficult to isolate the influence of any single factor, such as intelligence.

A typical boy at N.T.S.B. is a white boy, aged 16, who was committed for violation of the Dyer Act* from one of the Southern States. He has a history of previous offenses and had been placed on probation. His intelligence is within average limits and he has attained the seventh grade in school (table 7). He will spend between 6 months and a year at the school (table 8).

Prior to the enactment of the Federal Juvenile Delinquency Act on June 16, 1938, Federal juvenile offenders were tried by the Federal Government just as adult offenders. This Act provides for the removal of the juvenile offender from the stigma of the criminal procedure and reduces to a minimum the detention and commitment of the juveniles in penal institutions designed for adults. It may be summarized as follows:

1. A juvenile offender is an individual 17 years of age or less who may have committed an offense against the laws of the United States that is not punishable by death or life imprisonment.
2. Any juvenile so charged may be prosecuted if the Attorney General so directs and the accused consents to be tried as a juvenile delinquent and not for the specific offense.
3. Any United States District Court has jurisdiction to try juvenile delinquents at any time or place and the trial is to be without jury.
4. If found guilty, the offender may be placed on probation or committed to any institution for rehabilitation and released on parole at any time, and may even be placed in foster homes.

For the past several years the trend in guidance work has been definitely toward the psychologic or even psychoanalytic interpretation of behavior. The environmentalist with his social approach was the first to supplant the organicist and then he in turn was supplanted by the psychologist and psychoanalyst. Each one, as he supplants the other, does not deny him entirely, but nevertheless relegates him to a minor position. It is this transition that evokes critical comment from many authorities in related fields.

TABLE 7

Educational Achievement

HIGHEST GRADE REACHED	NUMBER	PER CENT
5th or less	104	25
6th	50	12
7th*	80	20
8th	71	17
9th	47	12
10th to 12th	56	14
Total	408	100

* Modal or typical category

TABLE 8

Time at Institution

PERIOD	NUMBER	PER CENT
Less than 6 months*	147	36
6 months to 1 year*	157	38
1 year to 1½ years	53	13
1½ years to 2 years	24	6
Over 2 years	27	7
Total	408	100

* Modal or typical category

It is universally agreed that the best mental hygiene activities involve the utilization of medical, psychologic, psychiatric and social services, as integral parts of a single organization. However, it must always be borne in mind that the individual himself must be the key to the approach to the study of the psychopathology of behavior disorders.

At the N.T.S.B. the psychologist tests and interviews each new boy. He is particularly interested in the establishment of a mental level and in the discovery of special aptitudes and disabilities. Boys are tested individually or in small groups. Stress is laid on mechanical-manual skills, since it is believed that most of the boys eventually will find their places in trade and factory jobs. Those with an appreciable aptitude for mechanical work are counseled to prepare for the skilled trades as electrician or machinist; those with average aptitude, for semiskilled occupations such as machine operation; those with little aptitude, for manual or simple-assembly jobs. Intelligence and other personality factors are weighed in the counseling. It is realized that there is no hard and fast classification of workers based on sheer ability, but rather that those with considerable motivation and determination often can overcome apparent deficiencies in other respects. The psychologist attempts to be realistic and to base his counseling upon actual opportunities for training and for employment that the boy is likely to find in his home community. The plan for each boy emerges as he and the psychologist discuss possible alternatives. The psychologist lays before each boy as many of the pertinent data as it appears the boy can absorb and make good use of. The boy is encouraged to assay his qualifications as objectively as he can in the light of his particular situation and of the possibilities that it affords him. The final decisions are his. If he decides he wants to become an auto mechanic in the face of odds which indicate that this choice is a poor one, there is nothing for the psychologist to do but wish him luck. The psychologist knows that he has been mistaken in the past and he believes that the counseling may yet prove useful as the boy attempts to enter and progress in his chosen field. Most boys, even at 16 or 17 years, have found out by trial and error a great deal about themselves, and the usual rule is for the vocational aspiration to fall pretty much in line with the ability level.

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* The Dyer Act is transportation of a stolen vehicle from one state to another.

Patients amenable to psychotherapy may be divided into two general groups. The first consists of the larger group amenable to psychotherapy and to sociopsychologic therapy, in which the psychiatrist and probation officer or social worker can coöperate. These cases offer more or less specific neurotic problems when the delinquent act has been a form of neurotic expression, with attendant immature or antisocial attitudes. This situation calls for individualization of treatment in addition to group activities, such as recreational facilities and work programs.

The second group consists of individuals with organic conditions which can be treated along indicated therapeutic lines with due regard for the indirect influence of these conditions on the personality and behavior pattern.

The aim of such rational therapy, as distinguished from the customary "well-wishing and sympathy" type of therapy, is to give some degree of insight into the basic conditions which gave rise to the delinquent acts. Obvious difficulties arise in trying to develop rapport in an institutional environment and when the court procedures are still fresh in the memory of the offender. This serious problem is encountered by all workers in this field. The law lists among its objectives: (1) the check of further criminal activities, (2) deterrence of crime in others, and (3) the ultimate reform of the criminal. The primitive attitude of society toward the offender is predominant in the public conscience and hence in legal institutions and judicial practices. It is obvious to psychiatrists that when punishment of the individual is a paramount method of treatment, any curbing of his antisocial impulses is questionable.

The psychiatrist under such circumstances cannot help but convey some measure of this attitude to the individual delinquent. This adds to any ingrained feelings of insecurity and inferiority and emphasizes the usual emotional immaturity. Society's attitude must be ameliorated if the individual is to recognize that there is something wrong with his own attitude and that the psychiatrist is in a position to offer him assistance of a tangible value to his future. The aim is to develop a patient-psychiatrist relationship, rather than a prisoner-physician relationship. When the patient recognizes even the need for this type of relationship, a fair degree of insight is already developed.

In addition to this type of personal technic, group therapy is also of much value. This shows the individual that his problems have much in common with those of others and he has not been singled out because of any individual peculiarity. Small groups are best adapted to achieve the proper degree of rapport. They may even make for a feeling of kinship and overcome fear and apprehension. Such group therapy is especially indicated to relieve the usual heavy case load. In addition, the psychiatrist must develop free social contacts, such as speaking in the vernacular when necessary to secure the confidence of the individual and/or group.

The organic approach is still indicated and is highly individual in its application. In the past few years our knowledge of the functions of the ductless glands has shown marked increase and is much more accurate. This has largely been due to the successful efforts of the physiologists to isolate the active principles of these glands. The discovery and isolation of active principles of the thyroid, adrenal, pituitary, pancreatic, parathyroid and sex glands has made possible more accurate information regarding their function.

It is known that each gland secretes a specific hormone which is essential to the welfare of the individual. Any change in this function results in definite changes in the general metabolism. There is also a close interrelationship among the glands that constitutes a reciprocally dependent system. There is no body system that is not directly or indirectly influenced by the glands. In brief, they are intimately bound up with all development, physical as well as mental.

The fact that the mental defect of the cretin is due to a thyroid deficiency has long been known. The fact, however, that disturbances in the functioning of the various glands of internal secretions may cause the individual to develop personality traits and characteristics which stamp him as different from the normal is not so well known.

The physical anomalies produced as a result of pathologic disturbances are well known. What has been lost sight of, however, is the fact that coincident with the physically abnormal changes there may be corresponding mental changes also abnormal. The mental changes are often subtle and may affect only the personality make-up of the individual. Some may be so marked as to show themselves in the form of gross psychopathologic conditions such as mental retardation or schizoid reactions. Hypothalamic lesions are often so manifested. The role that physical habitus plays in the development of certain physical diseases has been well established. There is also the obvious influence of strong emotional stimuli on the glands.

In addition to the establishment of definite physical and hence mental types, abnormal functioning of the glands of internal secretion may produce still another effect. This effect is more indirect and applies to the mental attitude which the individual assumes toward his own abnormality or shortcoming. This fact is of tremendous importance, since it is this attitude which, as a rule, determines his own entire attitude toward life and furnishes the motif for behavior. Unless this fact is recognized, it becomes impossible to explain many behavior patterns of children and adolescents. It is possible to accurately determine the anatomic age by examination of the osseous centers of growth. This anatomic age merits equal consideration with the chronologic age and the intelligence quotient.

Bearing all this in mind, it is not difficult to understand why the adolescent boy who is suffering from eunuchoidism as a result of gonadal insufficiency should develop a marked feeling of insecurity which in turn leads him to shun his companions, to become morose and shut-in, and to feel that he has been cheated and that life is not worth living. Nor is it difficult to understand why, for example, the girl who matures sexually at 8 or 9 as a result of a combination of pituitary and ovarian hyperactivity develops personality traits and characteristics which may lead to grave conduct disorders.

Such individuals realize early in life that they are different from their companions, and, probably what is just as important from the mental standpoint, they also realize that their abnormalities are known to others. Such knowledge leads to severe mental reactions and makes the individual adopt an abnormal philosophy of life. The outlook on life is largely conditioned by the ability to share the common things that life is supposed to offer to all. The realization of being handicapped, or of being conspicuous, will obviously tend toward the development of undesirable personality traits which make normal social adjustment difficult.

Less well known are the effects of brain cell deterioration following upon conditions which produce oxygen starvation. Such anoxemias are not the necessary accompaniments of any specific disease. They occur in cases in which there is interference with the functioning of the organs which supply oxygen to the brain. Chornyak[1] demonstrated that there is a selective vulnerability of those portions of the cortex which are latest in developing. Prolonged asphyxiation at birth may injure areas where the cells are still in an embryonic stage. In the earlier years of infancy and childhood, oxygen starvation in pneumonia and whooping cough often is reflected in those areas whose tissues are not yet mature enough to stand such deprivations. Toxemias or even malnutritions may also produce these changes. One must also consider the influence of a disease or injury, since either may affect the early or later shaping of the personality. Such damage from injury to the central nervous system, as from chorea, encephalitis or trauma, may modify the personality directly, or indirectly, due to efforts to compensate for the aggravation. It is quite conceivable that the electroencephalograph will aid in the discovery of such cases. The indicated therapy is still highly empirical, but reports show that the use of anticonvulsants are promising in their control.

Mental defectives are offered simple habit training and simple vocational operations. Further institutionalization is indicated in many cases and is based more on their performance than their I.Q. The psychotics demand immediate transfer, as do epileptics. The defectives offer the usual psychiatric complaints, and are not a homogeneous type. There is, however, one characteristic common to all types, that marked improvement follows the discovery that they find something that they like to do and can do well. This bolsters personal esteem and is actually a form of insight.

Psychiatric and psychologic reports are submitted on each boy; in addition to formulating a diagnosis, these outline any treatment indicated. Recommendations for the formal school program are also made at this time. The degree of supervision indicated is recommended and serious custodial risks are often sent directly to a unit for maximum custody. An expression of opinion is made for both immediate and future prognosis, and recommendation for transfer to a mental hospital or an institution for older offenders and greater security can be made.

A comprehensive neurologic examination is made, but the formal report includes only positive findings except when the history suggests possible involvement of the nervous system.

Accurate statistical data are needed, and their collection is rendered difficult by lack of uniformity in diagnostic criteria. These are usually descriptive with no prognostic connotations. No single diagnosis is applicable, and a multiple classification scheme is indicated. Selling[2] offers a practical solution in which the formal divisions would be:

1. Etiology
2. Functional syndromes or symptomatologic groupings

3. Structural representation (tissue involved)
4. Prognosis.

Neurology is largely classified according to the anatomic changes present, and mental functions are considered only as symptoms. In child guidance, the tendency has been to base classification on etiology. In legal medicine and custodial psychiatry, symptoms without regard to their bases have been stressed. It is obvious, nevertheless, that no one of these angles is more important than any other. A group of 252 cases studied in the 12-month interval from April 1941 to April 1942 were analyzed and subjected to a simplification of the above type of analysis. Table 9 is a classification outline of this group.

TABLE 9

Classification Outline of 252 Cases

	PREDISPOSING		EXCITING		
Etiology	Heredity 9 (3.6%)	Environment 187 (74%)	Trauma 16 (6.3%)	Infection 4 (1.5%)	Environment 2
Functional	Defective 92 (36.5%)	Neurotic 68 (27.4%)	Unstable 177 (70%)		Psychotic 3
Structural	Normal 135 (53.5%)	Organismal 95 (37.7%)	Neurologic 16 (6.3%)		Endocrine 30 (12%)
Prognosis	Usual Environment 65 (26%)	Changed or Special Environment 118 (47%)		Further Institutionalization 69 (27%)	

The factors predisposing to the cause of commitment were either or both predisposing and exciting. Heredity was considered predisposing whenever one of the parents suffered from some form of psychosis. Only 9 boys or 3.6 per cent offered such a history. However, 187 boys or 74 per cent came from homes that predisposed to the development of antisocial behavior. Most of these homes were broken by loss of a parent through death or separation, or the interpersonal relations were marked by serious discord. A submarginal income alone was not considered a significant factor.

Listed under the exciting factors, 16 boys or over 6 per cent had a history of trauma temporally related to the onset of the delinquent behavior, or gave a history of difficult delivery, or stormy infancy in 4 cases. Sudden change in residence led to difficulty in only 2 cases. The possibility of a predisposition must be considered.

Functionally 92 boys or 36.5 per cent tested below 75 in abstract and inferior in manual tests given by the psychologist. The tests used were the Revised Simon Binet or the Otis Intermediate Tests for abstract intelligence, or the MacQuarrie, Minnesota and O'Connor tests for mechanical ability or manual aptitude.

The neuroses represented personality difficulties predicated upon the inability of the individual to meet satisfactorily certain life situations. There were 68 boys or over 27 per cent offering such problems. Adolescence is a period characterized by emotional instability and intellectual inefficiency as well as the more obvious physical signs. About 177 boys or 70 per cent showed such instability and this could not in itself be considered abnormal. There were 3 cases of psychosis, representing 1 manic, 1 depressive, and 1 constitutional psychopath with psychoses.

Structurally only 135 boys or 53.5 per cent were considered normal or average physical specimens. There were 95 boys or almost 38 per cent showing some stigmata, even if it were only an error of refraction. Not all of the 16 boys or over 6 per cent showed obvious neurologic signs. However, the total picture, including history and behavior, strongly suggested at least involvement of the higher association centers. Thirty boys or 12 per cent showed some obvious endocrine dysfunction, usually delayed or precocious development.

The etiology was based on the total picture offered by the above data plus the boys' initial reaction to institutionalization. Here the highly personal element plus a certain amount of intuition based on experience entered the picture. Only 65 boys or 26 per cent were conceded a chance for rehabilitation and a satisfactory adjustment upon return to their original homes. However 118 or almost half the boys were considered doubtful prospects and were conceded a chance only if offered adequate parole supervision and proper coöperation on the part of the parents. The 69 boys or 27 per cent that seemed poor prospects were rather clear-cut and, lacking proper segregation, should have been transferred to institutions offering a greater degree of custodial care. They should also have an indefinite sentence extending beyond minority where it is indicated.

During the above period of study, 99 cases were transferred to other Federal institutions for greater security, and these represent failures. Two hundred of the original 252 had previous court contacts. Among those requiring special care were 30 defectives. There were 24 of this type requiring further institutionalization with poor prognosis. Of the entire group 94 or over 37 per cent were from the District of Columbia. There has been an increase from one fourth to one third of the District of Columbia cases represented in the school population. Only 14 or 15 per cent of these cases were given a good prognosis, with 43 or 46 per cent requiring special attention and 37 or 40 per cent given a poor prognosis. This would seem to indicate lack of proper facilities for proper control of this group, although they constitute a more delinquent type.

SUMMARY

The National Training School for Boys is a Federal institution for juvenile offenders who violate Federal regulations. Most of the boys are committed under the Federal Juvenile Delinquency Act, but between one third and one fourth of the population are committed from the District of Columbia. The institution functions under the Bureau of Prisons, with the medical services supplied by the U. S. Public Health Service. A purely eclectic attitude is taken toward therapy, although formal analytic technic is not used. A revised classification outline is offered which takes cognizance of etiology, functional syndromes, structural representation and prognosis.

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2. Selling, L. S.: Suggestion relative to classifying nervous and mental diseases. Psychol. Record, 1937, **1**, 217.

During four years 1937–1940 tuberculosis caused more deaths in the United States than were caused by all the battles of all the wars in which this country has been engaged, beginning with the Revolutionary War and continuing through the first World War. Robert Plunkett, M.D.: Bull. N. Y. State Dept. of H., February 1943.

In the three years following the last war more people died from famine and preventable disease than were killed in the war itself, hence the importance attached to the present organization of postwar relief. The principal regional medical officer, British Ministry of Health, holds that the lives and health of millions in Europe as well as the physique and welfare of a generation to come depend on how well this preparatory work is done. He visualizes four principal problems—the provision of food, the supply of medical necessities, the control of such diseases as typhus, malaria, tuberculosis, and dysentery, and the reëstablishment of the medical, hospital and public health services in each country. Editorial: J. Roy. Inst. Pub. Health & Hyg., March 1943.

Editorials

MEDICINE AT THE CROSSROADS

Recent sampling shows widespread infection of the medical profession with two deadly viruses, complacency and defeatism.

Symptoms of the first disease are apathetic conduct, total absorption in one's professional duties, and occasionally the "burying of the head in the sand" while the "winds of destiny blow" unnoticed and uninterpreted. Dr. Grandison D. Royston of St. Louis in his Presidential Address* last September referred to the "growing tendency of the government to provide medical care, to which our profession seems somewhat indifferent. . . ." In another place he stated, "This threat looms much more ominously over us today than in 1940, yet it is doubtful if our medical schools are fully alive to this danger of political control."

The second disease is different. It is characterized by an anxiety state. Its victims feel it is incurable—that no remedy or personal effort will make any difference. It results in a feverish effort to provide as much personal and family competence as possible before the death knell.

The times just ahead are probably the most critical in our history. Profound changes in our "way of life" are being proposed and possibly some of them will be adopted.

A few of these proposals relate to centralized control of health services. Some physicians have devoted a great deal of thought to the health needs of the country and are keenly aware of the present trend. But for the rest it must be asked: Where have the doctors been all this time? Do they not care what happens to the people where health is concerned? The answer is found in the illnesses mentioned above.

This is not a plea for more or fewer specialists, for higher or lower fees, for rural or urban migration of physicians, nor for medical service plans and insurance schemes.

Rather, physicians are urged to develop a sense of personal responsibility for a constructive medical care program. Physicians are going to have themselves to blame for what may happen to the public under socialistic health proposals made by professors and politicians.

In his address Dr. Royston states: "As members of a thoughtful profession, we can, we must, we will adjust ourselves to the needs of our country and of our people," and further, he says, "Let us hope that a sane and practical solution of our problem will keep our profession out of the realm of the politician and of political control."

What may happen to doctors and their practices cannot be offered as a valid basis for opposition to trends, except as these trends may result in unpleasant consequences to the health of the nation—the health of both the big and the little man.

But every such development that tends to undermine the ability of the doctor to prevent and treat disease, his ability to grow, his desire to teach, and his opportunity to extend the boundaries of knowledge—these developments should be opposed, not by blind reactionary resistance, but by preparing and showing a better way. Only in this way can the doctor, in the interest of the public, wrest the ball back from the politicians and run with it toward the goal. The time is past for a defensive attitude. An offensive must now be undertaken.

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* Read before the Fifty-fifth Annual Meeting of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Hot Springs, Va., September 10–12, 1942 (see Am. J. Obst. & Gynec., 1943, **45**, 365).

What the medical profession as a whole needs at this time above anything else is leadership which inspires confidence—able, constructive leadership. It needs the confidence which is inspired by elected leaders who can speak for them effectively without arousing unnecessary antagonisms. It needs in its national organization a quicker response to the heartbeat of the doctors and the times. It needs the elimination of reactionary tendencies at the top.

Why has it not had these?

There are many reasons. Doctors in general are not good organizers although they may be good lower-case politicians. Doctors who have the long view are often too closely occupied with the immediate needs of patients and research to take time out for leadership in their organizations. Some may have come to the conclusion that the politicians have them and the public "licked."

As far as public relationships go, doctors know the pulse of their own patients, but collectively they do not always know the pulse of the people.

The voice of the doctors should be clear and convincing. Its statements should be based on thorough and sympathetic understanding. It should not be complacent, resting on the splendid accomplishments of the past. It should be a special pleader in the interests of the people's health. It should be coöperative and progressive, bringing forward as needed new and constructive proposals which will benefit the public. Such is the voice that should represent the doctor.

H. P. R.

PREVENTION OF ANEMIA AFTER REPEATED BLOOD DONATION

A single donation of 500 c.c. to 600 c.c. of blood by a healthy adult has no lasting effect on the well-being of the donor. However, if such donations are made repeatedly, it is reasonable to except that symptoms of anemia will develop, provided that the donor's rate of regeneration of hemoglobin does not keep pace with the blood loss. Obviously, the interval between donations should be long enough to allow complete restoration of the hemoglobin.

In the past few months practising physicians have commented on the finding of anemia in patients who have responded enthusiastically to the Red Cross campaign for blood donations by giving blood regularly every 2 months. Probably the majority of adults can safely give a pint of blood every 2 months, as the Red Cross requests, but there is evidence that this is not true for all. As a matter of fact, there is a wide individual variation in the rate of regeneration of hemoglobin after blood donation.

Fowler and Barer[1] studied this problem in 200 blood donors with the idea in mind that their observations might be helpful in the selection of donors and in determining the frequency with which they should be used in transfusion services on a large scale. The data collected in this study demonstrate that after the donation of 500 c.c. to 600 c.c. of blood the average drop in hemoglobin is 2.3 Gm.; that the hemoglobin level before donation is not a factor in the rate of regeneration after blood donation; but that the length of the recovery period is directly related to the degree of the initial drop in hemoglobin. The recovery period in 105 male donors ranged from 18 to 98 days (average, about 50 days), and 25.8 per cent had not fully recovered at the end of 8 weeks. It was found further that in a small group of female donors the average daily regeneration of hemoglobin after blood donation is significantly slower in women than in men. For all donors the rate of hemoglobin regeneration after subsequent donations did not seem to be slower than after the first donation.

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[1] Fowler, W. M., and Barer, A. P.: J. A. M. A., 1942, 118, 421.

More recently, these same authors[2] have reported on the effect of administration of iron on hemoglobin regeneration in blood donors. This causes a more rapid regeneration and considerably shortens the recovery period after blood donation. However, if the iron is given continuously and repeated blood donations are made, the effect of the drug becomes less marked in the second recovery period and has little or no effect on the rate of hemoglobin regeneration during subsequent recovery periods. It is presumed that iron has a transient stimulating effect on the bone marrow as well as its action in replacement therapy.

The results of the studies summarized here strongly indicate that the interval between repeated donations of blood should not be set arbitrarily at 2 months. Subsequent donations should not be made until the hemoglobin has returned to its original level. If the hemoglobin of the donor is not to be determined regularly by some accurate method, an interval of 3 months should be allowed between donations. The continuous administration of iron to donors cannot be expected to improve the rate of hemoglobin regeneration consistently, although the drug has an excellent effect after the first donation and a fairly good effect after the second. Attention to these simple details should make the repeated donation of blood a safe procedure for all healthy adults.

H. H. H.

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[2] Barer, A. P., and Fowler, W. M.: Am. J. M. Sc., 1943, 205, 9.

OUR INDEBTEDNESS TO THE AUXILIARY

Too few of our members are aware of the good work being done by the Woman's Auxiliary to the Medical Society of the District of Columbia. Evidently their wives tell them little about it, or if they do, they fail to listen attentively. Whichever way it is, it is to be hoped that our physicians will read these comments and show their appreciation by a word of commendation to their "better halves."

As in all groups, leadership is an important factor in the success of the Woman's Auxiliary. The Auxiliary was unusually fortunate this year in having as its President Mrs. A. Magruder MacDonald, a gracious and capable executive. Mrs. MacDonald has been tireless in her efforts on behalf of the Auxiliary and to her must be given a great measure of credit for its accomplishments. Like all wise leaders, Mrs. MacDonald has surrounded herself with able and faithful assistants who, too, deserve a lot of credit.

Elsewhere in the MEDICAL ANNALS there appears the annual report of the Woman's Auxiliary. This sets forth in detail the Auxiliary's projects for the past year. However, mention might be made here of a few of the highlights of the Auxiliary's program.

Several buffet suppers have been given during the past winter for Army and Navy officers, mostly of the medical corps, stationed in and near Washington. The majority of these men were far from home. Their appreciation of the Auxiliary's efforts has more than repaid the women for the labor and time involved in preparing the suppers and planning the entertainment.

As in previous years, the Auxiliary coöperated most effectively with the Committee on Arrangements for the ANNUAL SCIENTIFIC ASSEMBLY. Especially was this true in connection with the Pan American Exhibit. During the meeting, a campaign was also carried on to raise funds for the Medical and Surgical Relief Committee of America.

The Auxiliary was active throughout the year in community affairs. It contributed to the Red Cross and a number of community charitable organizations. Direct contributions to the Medical Society included a donation to defray half the cost of painting the library, and a new flag for the auditorium of the Society's building.

Despite the success which has attended the Auxiliary's efforts, its President is very modest. She feels that much more might have been done. That is the spirit which has made the Auxiliary what it is—a live organization which has more than met its responsibilities.

PERTINENT PARAGRAPHS

April Meetings

Since this was the last month before meetings of the Society were discontinued until next October, the Society's office was unusually active with the preparation of reports and other details relating to the Annual Business Meeting. Meetings of boards and committees, however, continued.

The following meetings were held:

April 5	Postgraduate Course on Acute Respiratory Diseases
	Subcommittee on Program, Annual Scientific Assembly
April 9	Committee on Medical Service
April 10	Subcommittee on Tuberculosis
April 13	Subcommittee on Child Welfare
April 14	Scientific Meeting of Society
April 15	Obstetrical Board
April 16	Medical Bureau Committee
April 19	Committee on Public Policy
April 20	House Committee
April 21	Scientific Meeting of Society
April 26	Board of Censors
	Subcommittee on Maternal Welfare
	Subcommittee on Mental Health
	Executive Board
April 28	Scientific Meeting of Society
April 30	Executive Board

* * *

Selective Service Examinations

Recently Colonel Leonard G. Rowntree, Chief of the Medical Division of the Selective Service System, sent to the Editor of the MEDICAL ANNALS Medical Circular No. 3, which sets forth the reasons for the adoption of the present method of examinations, reviews Selective Service Regulations pertaining thereto, and lists manifestly disqualifying defects, deficiencies, disorders and diseases. Colonel Rowntree points out that "the demands on the medical profession are unbelievably great and the number of doctors entering the military service very large. Since Pearl Harbor the quotas have been increasingly large, thus the number of men to be examined each month is in proportion. Under the circumstances it is impossible for the examining physicians of Selective Service to carry out the complete physical examination on all registrants."

"Selective Service is much impressed with the devotion and the patriotism of its examining physicians and dentists. As you no doubt know, these professional men in Selective Service are making the preliminary examination of registrants who are to be inducted into all branches of the military service. This represents a national service of great magnitude and importance."

In a later issue of the MEDICAL ANNALS, portions of the Circular will be published in the War Section. This will serve to clarify the type of examinations being given to which objections have been raised by both examining physicians and the public.

* * *

Questionnaire Reaction

Like other citizens, physicians are deluged with questionnaires. Government agencies, commercial concerns, and innumerable private groups call upon them for information about matters in which they often have little or no interest or which are of questionable importance. Small wonder that there is a growing resentment among doctors toward this method of gathering data. However, this of itself is not sufficient to condemn the questionnaire as a means of obtaining essential information.

Some questionnaires, it is true, are too complicated. On the other hand, recipients often fail to read the simplest ones carefully enough to make their replies of value. Many physicians are guilty of carelessness in this regard.

Doctors should be selective in answering questionnaires. They should first of all eliminate those of no apparent value. This will not include questionnaires received from their medical societies, for with few exceptions they are important to the physician and relate directly to matters vitally concerned with medical practice. A case in point is the questionnaire recently sent out by the Committee on Medical Service for the District of Columbia, in which an attempt was made to ascertain the patient load of physicians in the District, the calls to which they cannot respond, and the willingness of specialists to do general practice in an emergency. The data provided will indicate the adequacy of medical service in the community and stabilize the position of physicians on the home front.

So, doctor, when you receive a questionnaire from the Medical Society, complete it promptly and get it over with. Read the questions asked carefully before writing your answers. Many physicians, as stated previously, fail to do this and their replies mean little or nothing. Then, too, questionnaires received months after they should have been returned are worthless.

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Gasoline Rationing Difficulties

Physicians are still calling the Society's office in regard to gasoline rationing. They complain of delay in obtaining supplemental coupons. This difficulty is due largely to the fact that changes in the personnel of local rationing boards are constantly taking place. Another contributing factor is the physician's failure to follow the prescribed procedure. It might be well, therefore, to remind physicians of the procedure which must be followed.

First of all, application for supplemental gasoline coupons must be made to the local board in writing. The doctor should present his application in person and make known to the clerk who waits on him that he is a physician. The application should be passed on immediately, in fact, while the doctor waits. If this is not done and it is suggested to him that he return another time, the physician should call the Secretary of the Medical Society. The Secretary will immediately get in touch with District OPA headquarters from which contact will be made with the local board to which the physician has applied.

Most local rationing boards have been very coöperative. As stated in the beginning, where there is any difficulty it is usually because clerks are not familiar with the memorandum sent to local boards by the Director of OPA for the District on January 21, requesting that personnel be instructed to segregate physicians' applications and expedite them as much as possible. In view of this action and the prompt response to requests for assistance, members of the Society are urged to follow scrupulously the procedure prescribed for all citizens in connection with gasoline rationing.

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Washington Representation Urged

In the April number of the Medical Annals, editorial comment was made on the National Conference on Medical Service held in Chicago on February 14. The Conference, it was stated, had urged the "immediate development of a stronger national and legislative policy governing the practice of medicine and that such a policy be integrated with each state and county." Since that time, the Conference has adopted a resolution to be presented to the House of Delegates of the American

Medical Association in June, recommending the establishment of a Committee on Medical Service to be composed of the following members:

1. The President of the American Medical Association, *ex officio*
2. The Immediate Past-President of the American Medical Association
3. The Secretary of the American Medical Association, *ex officio*
4. A member of the Board of Trustees of the American Medical Association, designated and selected by the Board of Trustees
5. One member of the American Medical Association elected from each of the following nine geographical subdivisions of the United States: New England, Middle Atlantic, East North Central, South Atlantic, East South Central, West South Central, West North Central, Mountain, Pacific.

Among other things it is proposed that the Committee "shall establish and maintain an office in Washington, D. C. and shall further be empowered and directed to employ a full time Executive Director, who shall act as Secretary of the Committee, and whose duties shall be specified by the Committee. Such Executive Director shall be a physician who has been actively engaged in the private practice of medicine for not less than five years during the previous ten years, and furthermore, be informed and qualified to act as a Liaison Representative of said Committee." It is further proposed that the Committee be authorized to hire such legal and administrative help as is necessary.

What the House of Delegates will do about this proposal is, of course, problematical. Several state medical societies are reported to have taken, or contemplate taking, official action similar to that of the Conference.

Apropos of this proposal, Dr. Julian F. DuBois, of St. Paul, Minnesota, in a recent address commented as follows:

> "If we value our medical heritage, then certainly we should fight for it, so that we may hand to posterity what our forefathers handed to us. In my opinion the American Medical Association should have a public relations office in Washington manned by a doctor and a lawyer to scrutinize all legislation pertaining to public health. . . .We cannot stand aside and say it cannot happen here. We cannot say that we have an impregnable Maginot line, but we must rise up in our might and let the public know that the panaceas offered by politicians are like a boomerang that will return and strike them in the head. Many countries have some form of socialized medicine, yet today medical care in the United States is the best in the world. It is our desire that it should be, and that no one will be without medical or hospital attention when necessary, but we must insist that changes be in the hands of medical men who are interested in medical advancement and in humanity and not in the hands of a bureaucracy which is interested in politicians and a political future. Under any system other than this the public is the one who must suffer. The public should at all times have freedom of choice of their physicians. It seems to me the only proper agency to represent the medical profession before the press and before law making bodies is the American Medical Association. . . .If we are interested in humanity, in the care of the sick, in an independent medical profession, then let us drop our lethargy and through the American Medical Association, our state societies, our county societies and our individual doctors, unite as a single militant unit and preserve for posterity what our forefathers gave to us and what our armed forces are fighting for—INDIVIDUAL FREEDOM."

★

Mutual Interest in Health

No one challenges the unique position of the physician where matters of health are concerned. Upon him, more than anyone else, rests the responsibility for the maintenance of the physical and mental well being of those under his care. Of considerable importance to the physician are the conditions under which he practices his profession. It is not surprising, therefore, that he views the proposals to alter tried methods of medical practice with skepticism and even alarm. Some of them, he feels, would be harmful to the people and he has no hesitancy in saying so. This is as it should be.

Unfortunately, his views have not always been welcomed and antagonisms have been aroused. Perhaps this has in some degree been the fault of the physician. For there has been a tendency on his part to regard the field of health as one in which the medical profession has an exclusive interest. In other words, he overlooks the fact that the people, having the greatest stake in health, also have views on medicine which he must consider. They are far better informed about health matters than they once were and are beginning to understand what constitutes good medical care. Millions will be added to this group when our soldiers and sailors return to civilian life, for they will have become accustomed to the best medical service.

Recognizing this mutual interest in health matters, medical organizations should include representatives of the people in their deliberations on medical care. By this means only will a satisfactory relationship be established.

In an address on the problems confronting the medical profession, especially as they relate to the recent decisions of the Federal Courts, Mr. William W. Crowdus, President of the St. Louis Bar Association, said:

> "Even at the risk of repetition, I want to say again that you should always bear in mind the people's side of the problems brought about by these legal decisions—and how they can best be served by any changes in the delivery of medical care, if such changes are necessary. After all, isn't the whole situation under discussion more important to the patients than it is to the doctors? Therefore, our citizenry should be adequately informed about these problems and the proposed changes and how they, the people, will be affected thereby, before any changes are made."

★

Shaping the Trend

An examination of medical journals in recent months reveals a growing concern about the future of medicine. There seems to be general agreement that the medical profession must consider the trend of the times seriously if the desirable features of present-day medical practice are to be retained.

In reporting on the progress of the Medical-Surgical Plan, the *Journal of the Medical Society of New Jersey* for April 1943 comments:

> "Recently we have heard the opinion expressed that 'subsidized' medicine is only a bugaboo, and that the demand for improvement in medical care distribution is but a passing fancy supported by our present political administration.
>
> "The above opinion would be difficult to substantiate if given careful study. Many of us fail to appreciate the significance of one incontestable reality—that for several years changing social concepts and ideals have been developing among the general population. These new concepts replace emphasis on welfare of the individual with emphasis on welfare of the masses or specific social groups.
>
> "These new concepts have been progressive, and have resulted in a movement which has been gaining momentum and prestige for over 25 years. . . ."
>
> "Adjustment to these influences does not necessarily require revolutionary changes in the practice of medicine, or alteration in the traditional ethics of the profession. The report of the National Planning Board on post-war planning recommends that the government and the medical profession get together to develop methods whereby individuals may pay for medical care on a budget basis. Those of us interested in medical service plans are lending constructive effort to develop such arrangements."

Minnesota Medicine, which has become vocal in its demand for action, states its views in the April number:

> "The general trend all over the world has been to protect common men from the hazards of life and it is highly improbable, even in the face of postwar reaction, that America will fail to move a considerable distance in that direction."
>
> "For physicians, the problem is not how shall we stop the trend, but how shall we shape it to protect our own preëminence in education, standards of practice and in personal responsibility? Shaping our own pattern will certainly require more than criticism from the sidelines. It will require close contact with all agencies and organizations on the Washington front and active direction of all policies related to medicine and the public health before they are crystallized into law and regulation."

Some pessimistic notes have been sounded about the various medical plans as a means of "shaping our own pattern." In an article published in the March 1943 issue of the *Rhode Island Medical Journal*, dealing with the Rhode Island Cash Sickness Compensation Act, Dr. Herman C. Pitts, says:

> "As I look into the future . . . I must confess to a feeling that all these plans being put forward are merely temporary; that they are sure to be swept aside by something larger and more all-embracing. . ."
>
> "The fate of all the . . . experiments being tried, such as the Blue Cross, the Blue Shield, the Michigan Medical Plan, the California Plan and a host of others will be the same. Their intent is most excellent, but their extent is insufficient to satisfy the wide enthusiasms of our experts in Social Security. No voluntary plan will satisfy their enthusiasms.
>
> "As a matter of fact, voluntary insurance has never been successful wherever tried. The very ones the insurance is aimed to benefit do not join in any great number because the working man will not as a rule part with the least bit of his hard earned money to save himself from something that may never happen. Then, too, voluntary insurance is one-sided in that the insurer pays all of the cost. If the insurer knows that capital and Government are sharing the costs with him, he is content to feel that he is getting something for nothing. Something that he can demand and get and since he can demand it and get it, surely it is his by right. We hear the phrase 'Wave of the Future.' Someone has said that the wave of the future is the rising tide of labor, and that rising tide of labor will certainly be behind whatever in its opinion will bring the security it longs for.
>
> "The medical profession never has been and never can be an 'organization in restraint of trade,' in spite of the Court's ruling to the contrary. The best we can do is to use our united influence in shaping future legislation so that some measure of the fine flavor of medical tradition will be left in the land."

A more encouraging view is that of Mr. Louis H. Pink, President of the Associated Hospital Service of New York, and former Superintendent of Insurance of the State of New York, who, in speaking at a meeting of the Kings County Medical Society on February 16, 1943, said:

> "Sir William Beveridge's contribution to Britain and to all countries lies not only in his definite social proposal. His philosophy is, in the main, sound, but has been little quoted here. He says:
>
> "'So far as voluntary insurance meets real needs, it is an essential part of security; scope and encouragement for it must be provided. . . .In considering the action of the State in regard to voluntary insurance, regard must be had to the extent to which voluntary insurance is already developed in various fields and the different circumstances under which it has developed.'
>
> "In this connection we should remember that in no place in the world has voluntary insurance of all kinds been sold so extensively as in the United States."

Commenting on the extension of social insurance by the Government, Mr. Pink says:

> "Increasing the number of persons covered and the amount of benefits, provided such broadening is based upon long term ability to pay, need not be postponed until after the war. But, standing alone, increased insurance coverage cannot provide freedom from want. Security must be based first of all upon a different kind of world. The nations must coöperate with each other so that economic benefits will be available to all and trade may flow freely. The standard of living must be increased, not only in one or two nations, but generally throughout the world. We must, through encouragement and stimulation of private initiative and worthwhile public enterprises, see to it that people are fully employed in productive effort. If these two objectives are not accomplished, it is idle to talk about any considerable extension of social security as a permanent plan.
>
> "Why is so little thought and planning given to these basic necessities and so much to the mere passing of laws which will extend compulsory insurance benefits? Are we not getting the cart before the horse?
>
> "Social insurance cannot create wealth, it can only distribute it more equitably. Any politician can propose a plan for extending social security, but only a statesman can erect it upon the base of full employment and international economic coöperation. We should increase our social security benefits and extend them as rapidly as we can, but there is danger that if we get this intricate machine speeding too rapidly and have not sufficient oil, we may burn out the bearings."

And so the discussion goes on. In the meantime it is stimulating a great deal of thought on the part of leaders of state and county medical societies. Many have come to the conclusion that it is their duty in their own communities to begin now to "shape" the trend.

Drug Tax for Medical Care The proposal advanced by Dr. Joseph Krafka, Jr., whose article entitled "Call the Doctor" appears in the March 1943 issue of the *Journal of the Medical Association of Georgia*, is interesting because it is unusual. Dr. Krafka would tax the users of proprietary drugs for the care of the indigent sick. He has this to say about it:

> "There is no argument against the statement that the medical care of the indigent must be improved. This is a tenet which has invoked many plans, instituted by the medical profession and lay organizations alike. I propose to develop a plan which has certain merits not commonly recognized. Simply stated I propose a ten per cent tax on all proprietary drugs, the income from which will be used to extend medical service to the indigent. This proposal has two virtues: it finances a definite program out of the income of an industry in which the profits have been notoriously great and it should as a result lead to a decline in the practice of self-medication.
>
> "Theoretically, the medical profession has no quarrel with the individual who takes patent medicines. But the individual is himself paying an excessive cost in that no diagnosis of his condition is written on the label of the bottle which he buys. Self diagnosis is a dangerous practice. It frequently leads to chronic ailment, and many times to death. Even the simple 'belly-ache,' fainting spell or slight hemorrhage may be the only outward signs of a dangerous condition.
>
> "You may be certain that any such proposal as herein made will be met by a powerful paid lobby against it by the drug interests. But by way of warning, under 'State Medicine' it is certain that with the proposed regimentation of doctors, we will also see a regimentation of the drug trade. Incidentally, you can add another 4 per cent tax to cover the cost of such a Federal Board for the Manufacture and Dispensing of State Medicines. Add still another 4 per cent for the FBH, or Federal Board of Hospitalization. Now your income tax approaches that of the English landed gentry. And yet we have only a theoretical opinion that medicine will be practiced more scientifically and more effectively than it is at the present time. Our experience with housing, relief, home loans, TVA, labor organization, old-age pensions, and agricultural subsidy should make us hesitant in any revolutionary program that changes the relation between patient and doctor when the cry goes up 'Call the Doctor.'"

Public Health Economics According to an announcement issued by the University of Michigan School of Public Health, it will offer an Institute on Public Health Economics, which is described as an intensive program for those interested in the organization and administration of prepayment plans. The Institute will be held at Ann Arbor from May 10 to 22, 1943.

The purposes of the Institute are described as (1) to consider the health problems of urban and rural populations; (2) to survey the wide variety of health plans that have been operating throughout the country, and (3) to study, in detail, methods of organization and administration.

The Institute will endeavor to meet the needs of two groups of students: (a) those who have executive experience or who have demonstrated executive ability in one or another of the health fields and whose interest is in the organization and administration of prepayment plans; and (b) those whose interests are in specialized fields of administration, such as public education, statistics, community appraisals, personnel management, machine accounting, etc. Enrollment will be limited to forty students.

The Institute is under the direction of Nathan Sinai, Dr. P.H., Professor of Public Health at the University of Michigan. Serving in an advisory capacity is the following committee: Michael M. Davis, Ph.D., Chairman, Committee on Research in Medical Economics, New York; Dean A. Clark, M.D., United States Public Health Service, Washington; Franz Goldman, M.D., School of Public Health, Yale University, New Haven; A. E. Larsen, M.D., California Physicians' Service, San Francisco; John R. Mannix, Michigan Hospital Service, Detroit; James C. McCann, M.D., President, Massachusetts Medical Service; F. R. Mott, M.D., Farm Security Administration, Washington; Kingsley Roberts, M.D., Medical Administration Service, New York; C. Rufus Rorem,

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President's Page

THE DOCTOR, AMBASSADOR OF GOOD WILL

Most people think of a public relations program as one devoted to publicizing the virtues of an individual, a group, or an idea. This is only partially true. To obtain favorable publicity is only one aim of such a program, for in its broader aspects it includes the creation of good will and respect.

Satisfactory relations with the public are of particular importance to physicians at this time. From reports and personal observation, I have concluded that there is no cause for complacency on this score. On the contrary, medicine today has too many critics for comfort. They are to be found among all classes, rich and poor, capital and labor, professional and non-professional. The basis of their criticism, even resentment, is that medical organizations are not progressive, that they are opposed to change, and that the medical profession seems to feel that it has a vested interest in health services.

Oddly enough, physicians as individuals are not subject to this criticism. The people whom they attend apparently do not think of their doctors as members of organized medical groups. To them they are personal advisers in matters of health in whom they have a great deal of confidence.

This relationship offers opportunities to physicians to bring about a better understanding of what medical organizations stand for and what they are endeavoring to accomplish. Physicians need only relate the facts, for despite its shortcomings, the over-all program of organized medicine in this country is sound. Every doctor, in these days, should consider it a duty to serve his professional organizations as an ambassador of good will.

War Section

YOUNG AVAILABLE PHYSICIANS SOUGHT

Young available physicians in the large cities of the country, particularly in those of the Eastern Seaboard, whose failure to volunteer has caused a lag in the procurement of medical officers for the armed forces, should be called before the bar of public opinion, *The Journal of the American Medical Association* for March 27 declares in an editorial. The *Journal* says:

"At a recent meeting in Washington of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians with the Officer Procurement Service of the United States Army and with representatives of other governmental agencies, evidence was clearly set forth that the procurement of medical officers for the armed forces is lagging. The responsibility rests unquestionably on the failure of young available physicians in the large cities of the country, particularly those of the eastern seaboard, to volunteer. Officers of the medical societies of New York, Massachusetts and Connecticut were present and the situation was placed before them. The rural areas of the United States have contributed doctors not only up to such quotas as were assigned to them but in many instances well beyond these quotas; it is simply impossible to anticipate that they will make a further contribution at this time. In the meantime, New York, Brooklyn, Boston and some of the larger communities in the states of Connecticut, New Jersey, Pennsylvania and California have failed even to approximate their quotas.

"The needs of the armed forces for physicians during 1943 are well defined. The number of physicians to be expected from recent graduates, interns and those now holding residencies has been determined. Beyond this number at least six thousand more physicians must come from the civilian population. The Procurement and Assignment Service for Physicians, Dentists and Veterinarians has devised a technic which involves, first, a determination of the availability of the physician concerned or his essentiality for any civilian position which he occupies; second, notification of the physician of his availability and a request that he appear before his local procurement board; third, a notification of the Selective Service Board of the fact that the physician concerned is considered available and that he has failed to volunteer. Thus far pressure beyond this has not been exercised. There remains, however, the mobilization of the pressure of public opinion.

"In some instances physicians have declared flatly to representatives of the Procurement and Assignment Service and the Officer Procurement Service that they do not wish to volunteer and that they will not volunteer. When it is known to other physicians in the community that a physician under 38 years of age, declared available by the Procurement and Assignment Service, refuses to volunteer in this time of the nation's need, when many an older physician, frequently with innumerable obligations, has given up his home, his practice and the responsibilities of years to participate in this war, the public has a right to know that the younger physician is not willing to do his part. Certainly the Procurement and Assignment Service should consider the possibility at this advanced stage of the war effort of making public through the state medical journals not only the names of those who are already participating in the war but also the names of those who have been declared available and have not themselves ever indicated a willingness to participate. Let them be called before the bar of public opinion!"

PROMOTIONS FOR OUR MEDICAL OFFICERS

Three members of the Society have recently been reported commissioned in the armed services. They are Drs. Crenshaw D. Briggs, David S. Clayman and Samuel Diener.

Promotions in rank have been received by a great many Society members. Previous announcements of such recognition have been published in the November 1942 and March 1943 issues of the ANNALS. To that list are now added the following names:

Walter Atkinson, from Major to Lieutenant Colonel
Alfred E. Brigulio, from Captain to Major
George R. Farrell, from Captain to Major
Stuart O. Foster, from Major to Lieutenant Colonel
James H. Gillen, from Lieutenant to Lieutenant Commander
Gerald A. Hopkins, from Lieutenant Commander to Commander
Bernard L. Jarman, from Major to Lieutenant Colonel
Elmer Klein, from Lieutenant Commander to Commander

Thomas E. Mattingly, from Captain to Major

Lee McCarthy, from Lieutenant Commander to Commander

William S. Miller, from Captain to Major

Reginald H. Mitchell, from Lieutenant to Lieutenant Commander

Leland C. Moss, from Lieutenant Commander to Commander

Albert E. Pagan, from Lieutenant Commander to Commander

Philip O. Pelland, from Major to Lieutenant Colonel

William Raffel, from First Lieutenant to Captain

Maurice A. Selinger, from Lieutenant Colonel to Colonel

Isidore Shulman, from First Lieutenant to Captain

William G. Sorrell, from First Lieutenant to Captain

J. Lawn Thompson, Jr., from Captain to Major

Francis D. Threadgill, from First Lieutenant to Captain

Albert M. Wheeler, from First Lieutenant to Captain

MORE LETTERS FROM PHYSICIANS IN THE SERVICES

Many additional responses to the Secretary's news letter of January 19 have been received since the publication in the March issue of the MEDICAL ANNALS of communications from our members in the armed forces. There have also been replies to the news letter dated April 2. Excerpts from them follow.

From Captain Victor R. Alfaro, Station Hospital, Atlantic City, New Jersey:

My dear Ted: Your letter was received with more than the usual pleasure one feels when he hears from an old friend. I am delighted with the news that plans are going forward to develop a medical insurance plan, to distribute available medical facilities equitably.

I like my work in the Army very much. Like everything in life it has its good and bad features. One of the most trying difficulties is the procurement of supplies of all kinds. Our station hospital has 1750-bed capacity. We run an average census of 1300. Much of the rehabilitation which was to be done in civilian hospitals we are now doing, since requirements were lowered, admitting so many men with correctible defects. My assignment is assistant chief of ear, nose and throat and our department keeps very busy.

Please give my regards to all our mutual friends. Keep writing to those of us in the service, we are delighted to hear from you.

From Colonel Daniel L. Borden, Commanding Officer, Station Hospital, Fort Eustis, Virginia:

Dear Ted: I thought you might be interested in some of the activities of our hospital. I enclose a copy of the "Sky-Watch" which covers the news for the past week with special reference to Irwin-Hall which was dedicated as the last building of our construction program. We have developed from a 750-bed hospital to 1106 beds, with the addition of eight new buildings to the hospital. This, as you can well understand, has involved a good deal of concentrated work.

Because of personnel shortage, we are carrying on our increased hospital with the same staff that we operated our smaller plant. For example, it may interest you to know that we are seeing, in our surgical clinic, as many patients in one month as we saw all of last year. In our orthopedic clinic we are seeing twice as many patients in a single month as we saw all of last year. This will give you a pretty good idea of the expansion of medical work in this particular location at this time.

I had hoped that you would be able to drop down to see me so that I could go over our hospital with you.

From Major Alfred Brigulio, Station Hospital, Fort George G. Meade, Maryland:

Dear Mr. Wiprud: I have received both of your "news" letters and would like to add my thanks and appreciation to the others you have already received. Although I am not so far away from Washington, believe it or not, I feel almost as isolated by reason of gas rationing and duty hours, as the men at much more distant points.

It is a real source of pleasure to hear of things going on in Washington, and at times hard to believe all the changes that have taken place. I was particularly interested in hearing of the new physicians entering the service.

I am glad to hear of increased attendance at the meetings as the last one I was able to attend was disappointing. This one, if you will remember, was the one at which Colonel Borden, formerly of this hospital, gave a paper on the Surgical Problems in the Army.

From Lt. Irvin Feldman, U. S. Naval Air Station, Upham, Canal Zone:

Dear Mr. Wiprud: Enjoyed your letter very much. It made me feel for the first time since I've been on active duty that I'm still a member of the Society. Would like to see more of them.

From Captain Charles E. Fierst, Station Hospital, Keesler Field, Mississippi:

Dear Ted: I wish to acknowledge with much enthusiasm the receipt of your letters, for I find them both informative and interesting in regard to the activities going on in the old home town. It was during July that I made my last visit to Washington, so you can well appreciate my eagerness to receive news from home.

It may be interesting for you and some of my friends to know that I am chief of the section of anesthesia and officer in charge of the surgical pavilion. We are one of the largest station hospitals in the Air Corps, and believe me, we do a considerable amount of work. The work has been extremely interesting and educational and I have been confronted with problems not ordinarily met in civilian practice. At the present time I have a trained anesthetist as my assistant, which is a great deal of comfort to the old Doc.

Milton Cobey just came into my office with an X-ray of a fractured forearm, in which both bones were involved, and they used the Roger Anderson splint with excellent results. He doesn't know that I am writing this to you, but he is like a kid with a new toy; tickled pink.

From Lt. Comdr. James H. Gillen, U. S. S. Cascade, c/o Fleet Postmaster, San Francisco, California:

Dear Mr. Wiprud: Some mail caught up with me the other day and with it was your letter. Certainly appreciate your thinking of those of us who can't attend meetings. It was grand to get some idea of what is what with the Society and the boys. I sure hope you find time to do that every once in a while.

From Captain Edward J. Grass, Regimental Surgeon, 148th Infantry, A.P.O. 37, San Francisco, California:

My dear Mr. Wiprud: Your letter of January 19, 1943 received with open arms, and the first good news I've heard since I moved to this area over 10 months ago. Tell my old pal Magruder MacDonald I haven't been in the States for over nine months so am not responsible for any of those OB cases.

The doctors over here are doing a great job and will have lots of interesting tales to tell you when they get back, and when a better opportunity presents itself I will write you again in more detail. My best to you and the great work you are doing for us all, and also greetings to members of our great Society.

From Captain Philip Litvin, Station Hospital, Camp Hulen, Texas:

My dear Mr. Wiprud: For some time I have been meaning to write you how much your letter telling us of what is going on in Washington has meant to us. To those of us who are so far away from home, it makes us feel that we are still part of the community.

My work here is fortunately in my field, neuropsychiatry. I am Chief of the NP Section of the Station Hospital. Of course, that means that in addition to the medical end, there is the administrative end. So far most of my work has been with the male but all kinds of nervous disorders have been seen. It is surprising how having a talking acquaintance with the hospitals in the vicinity of Washington has come in handy.

It might interest you to know that a professional society has been organized here and we are planning to have speakers come and address us whenever they are available. This tends to keep us on our toes professionally.

Comdr. Lee McCarthy, U. S. Naval Hospital, Corona, California:

Dear Ted: You had a happy idea when you decided to write such a nice long letter to the members now in service. It makes you feel good to know you are not "out of sight, out of mind" as well as getting the news from back home. It looks as if all our friends who have the real stuff in them are volunteering for service in the Army or Navy, procurement board or no procurement board.

I saw Maurice Selinger the other day. He is Chief of Medicine at the Torney General Hospital at Palm Springs and is now a full Colonel—a fine fellow and a real patriot. Two children and over age didn't stop him from volunteering. I am feeling pretty good myself as I was promoted March 13 to Commander.

From Lt. Col. Philip O. Pelland, McCloskey General Hospital, Temple, Texas:

Dear Ted: Thank you very much for your letter of April 2nd with news from home. It is most interesting to learn all that has gone on in Washington since leaving. Your letters are very descriptive and I enjoy them very much.

We are deep in the heart of Texas and outside of the local papers, news is rather scarce.

We have been very busy here and expect to be more so in the near future as the size of our hospital is being doubled. I expect before the summer is out that we will have close to 1000 orthopedic cases on our Service so you can see that I don't have a great deal of time for other than work, but that means the time passes rapidly and after all, that is what we came into the Service to do so I am not complaining.

I enjoy hearing about what the other men are doing and knowing where they are stationed. Naturally, I miss Washington but have the strong feeling that if I should have to return before this war is over, I would be most unhappy. When the job is completed, however, I shall be glad to take up where I left off.

I am happy to tell you that I recently received a promotion to the grade of lieutenant colonel but do sincerely hope the war will not last long enough to wear any eagles that may light on my shoulders because that does take some time to happen.

From Captain J. A. Swartwout, 70th Medical Battalion, Mtz., A.P.O. 827, c/o Postmaster, New Orleans, Louisiana:

Dear Mr. Wiprud: There is very little I can tell about myself. I came down here the first of January 1942 as one member of a general hospital. Our arrival was as much a secret to those here as it was to us. The 1200-bed hospital we were supposed to take over is still, at this date, unfinished and we have been split up and sent to various posts and hospitals all over this country. I was in a small Station Hospital for eight months and with this field unit since the 1st of September. Madam rumor has our hospital opening the 1st of July. That will remain to be seen. When it does open, we will all be called in from our various outposts and function as a General Hospital.

Naturally, I'll be mighty glad when this is all over and I can once again get back to my native city and in private practice. Hope that won't be the old-fashioned and forgotten method of medicine.

From Captain J. R. Young, Army Air Forces, Regional Station Hospital, Coral Gables, Florida:

Dear Mr. Wiprud: Received your most interesting and newsy letters of January 19 and April 2, 1943 and was very glad to hear from the Society and feel indebted to you for your well worthwhile effort. Was glad to see that our men are doing so well all over the country. We have quite a lot of lieutenant colonels which is a very nice grade in the Army.

On May 1, 1942 I left D. C. for Miami Beach, Florida, where I found that I was the only surgeon assigned to the Air Forces at that station. The station had been opened about March 1, 1942 so I got in on the ground floor and helped to organize the entire medical setup. For awhile I did all the surgery for the station, using the facilities of the local civilian hospital and a converted hotel hospital. On September 25, 1942 I was selected as one of ten surgeons from the entire Air Forces to be sent to Columbia University for a twelve weeks' course in maxillo-facial and plastic surgery (this was the first course given by a civilian school on this subject). I finished the course on December 20, 1942 and returned to Miami Beach Station Hospital where I remained until March 16, 1943 when I was assigned together with twenty-nine other officers to open up the Miami Biltmore Hotel as the Air Forces largest and finest hospital. It has been designated as a Regional hospital and corresponds to the General hospital in the regular Army. If you are down this way, don't fail to visit the hospital, and bring your golf clubs.

I certainly agree with you that your annual scientific session should be kept up and believe that the panel program idea is excellent. We have at least two medical meetings weekly down here, usually 6:30 to 8:30 Monday and Friday evenings. We have an excellent staff and the scientific subjects are always well presented and are usually supplemented with motion pictures and talks by outstanding medical men who are visiting the Miami area.

ANNUAL REPORT OF WOMAN'S AUXILIARY

For the fiscal year 1942–43 the Woman's Auxiliary to the Medical Society of the District of Columbia pledged itself to an all-out war program. A resumé of the various activities undertaken follows.

First on our program was the assistance given the Medical Society. During its three-day Annual Scientific Assembly at the Mayflower Hotel the Auxiliary sold emblems for the Medical and Surgical Relief Committee of America. The proceeds from this sale was sent to the Committee to be used for purchasing equipment for Emergency Medical Field Sets. Some of these sets are given to the Coast Guard and others are sent to war-stricken areas in foreign countries. A luncheon was held at the Sulgrave Club in honor of the wives of the Diplomatic Corps of the Pan American countries and for wives of out-of-town physicians attending the meetings. In furtherance of the Good Neighbor policy, the Auxiliary sponsored a Pan American art exhibit during the Assembly.

The Auxiliary contributed a beautiful silk flag with standard for the Society's auditorium, and has agreed to bear half the expense of painting the library, which work will be completed during the summer months.

Second on the program was the appointment of a special Red Cross Committee. A large number of our members took the Home Nursing Course. The Surgical Dressing Unit, which was started last year, shortly after Pearl Harbor, continued through the summer and has been turning out an amazing amount of work. Others have assisted the Red Cross by making children's dresses and surgical gowns. At present these members are making special bags for soldiers going overseas. We are also in the midst of organizing a Blood Donor Unit. We feel this is a most worthy cause and urge all that are able to do so to participate.

Third, we converted our annual social tea, which is held in January, into a Silver Victory Tea and divided the money contributed between Bundles for America and Smokes for Yanks.

Fourth, we have held three of a series of buffet suppers and entertainments in the library of the Medical Society's building for officers in the various services who are stationed in Washington for short periods of special training. These men, who are sent here from all parts of the United States, have been very appreciative of our efforts in their behalf. The suppers are donated by our members and feature home cooked food. This is a worthwhile work for it helps in a small way to keep up the morale of the men in the services, who have given up their customary living conditions, loved ones and friends to join in this gigantic fight for freedom.

Fifth, we have continued our usual philanthropic program. Some of these activities are listed here: assisting the Heart Association by providing toys at Christmas for the underprivileged, in-bed chil-

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On The Home Front

The House of Delegates of the American Medical Association will convene on Monday, June 7, in the Red Lacquer Room of the Palmer House, Chicago. **Dr. Henry C. Macatee,** Delegate, and **Theodore Wiprud,** Secretary, will represent the Society at these meetings. As has previously been announced, there will be no Scientific Assembly this year.

Dr. James Edgar Paullin of Atlanta, Georgia, will be installed as the new President of the Association, Tuesday evening, June 8.

At the **Fourth International Assembly of the International College of Surgeons,** which will be held June 14, 15 and 16 at the Waldorf Astoria Hotel in New York City, representatives of the United Nations will discuss the progress being made in surgery and rehabilitation under battle conditions.

Among the exhibits will be a visual demonstration of the work of the State of New Jersey Rehabilitation Commission, including its Curative Workshop. The Veterans Administration of Washington, D. C., will present charts showing the routine and special measures in bibliotherapy, occupational therapy, and physical therapy used in the treatment of patients in Veterans Administration Hospitals. The Medical Detachment of the 17th Regiment, New York State Guard, will set up a regimental aid station with members in daily attendance.

Among the local physicians who will take an active part in this Assembly is **Dr. Custis Lee Hall,** who is a member of the Rehabilitation Committee.

The Section on Gastroenterology closed its meetings for this year with a buffet dinner at the Wardman Park Hotel, April 5. Thirty members were present. Dr. Porter P. Vinson of the Medical College of Virginia addressed the Section on "Management of Dysphagia, with Special Reference to Hiatal Diaphragmatic Hernia." The following officers were elected for 1943-44:

Dr. William J. Mallory, *Chairman;* Dr. Robert Sterling McGrath, *Secretary-Treasurer.*

The Sixth Annual Meeting of the Medical Society of St. Elizabeths Hospital was held in the Psychodramatic Hall of the Hospital, April 17. Two papers were read at the scientific session: "The Treatment and Study of Narcotic Drug Addiction," Dr. John Davis Reichard, Medical Officer in Charge, U.S.P.H.S. Hospital, Lexington, Ky.; "Postwar Developments in the Field of Mental Health," Dr. Lawrence Kolb, Assistant Surgeon General, U. S. Public Health Service. A panel discussion on "Electric Shock Treatment" was presented by Drs. Alfred K. Baur, Robert Cohn, Anna Coyne Todd, Elmer Klein and Zigmond M. Lebensohn.

At the annual dinner in the evening, which was held at the Mayflower Hotel, Dr. Leo C. Rosten, Office of War Information, gave an address on "The Psychiatrist and Propaganda."

New officers elected during the business meeting were:

Dr. Francis J. Tartaglino, *President;* Dr. Albert E. Marland, *Vice President;* Dr. Alfred K. Baur, *Secretary-Treasurer.*

The Washington Ophthalmological Society heard an address, May 3, by Dr. Henry Minsky of New York City on the subject, "Suspensory Ligament of Zinn and the Zonular Chamber." Two case reports were presented at this meeting: "Surgical Treatment of Superior Oblique Paresis," Lt. William P. McGuire, M.C., U.S.N.R., and "An Unusual Case of Retinal Detachment," Major Meyer H. Riwchun, M.C., U.S.A. Case presentations were made by Drs. Ronald Cox, Walter Romejko, Benjamin Rones and Richard Wilkinson.

The George Washington University Medical Society devoted its meeting, April 17, to a consideration of venereal disease problems. Major William A. Brumfield, M.C., U.S.A., presented a paper on "Venereal Disease Control Program During Wartime." Major Charles R. Rein, M.C., U.S.A., spoke on "Serological Diagnosis and Interpretation of the Complement Fixation and Flocculation Reactions." Discussion from the standpoint of public health was led by Dr. R. A. Vonderlehr, Assistant Surgeon General, U. S. Public Health Service. His talk was entitled, "The Minimum Standards for Treatment of Early Syphilis."

At the meeting of the **Clinico-Pathological Society**, April 6, Dr. W. H. Wright of the Department of Zoology, National Institute of Health, spoke on "Public Health Problems Concerned with the Possible Introduction of Exotic Diseases and Their Effect upon the Practice of Medicine after the War." Dr. Lewis C. Ecker was host to the Society.

The International Medical Club held a luncheon in the Chinese Room of the Mayflower Hotel, April 7, in compliment to Dr. George Lambrichts, Director of the Government Experimental Laboratories in the Belgian Congo. Dr. Lambrichts, who maintains his headquarters in New York City, described the work entailed in sending medical supplies to the Belgian Congo.

At this meeting officers were elected for the ensuing year, as follows:

Dr. Matthew White Perry, *President;* Dr. Fred A. J. Geier, *Secretary;* Dr. Joseph Horgan, *Treasurer.*

Dr. Victor Fernandez Manero, Chief of Public Health Service of Mexico, and Dr. Raphael Fernandez, Governor of the Brazilian Province of Natal, were guests of honor of the Club, April 24.

To help the **Medical and Surgical Relief Committee of America** continue its work of providing emergency medical kits to Coast Guard patrol boats and Navy sub-chasers, an urgent appeal for drugs and instruments has been issued by the Committee to surgeons, physicians, and medical supply houses. Among the items particularly needed are artery clamps, splinter forceps, scalpels, probes, grooved directors, sulfadiazine tablets, sulfadiazine ointment 5 per cent, sulfathiazole tablets, and sterile shaker envelopes of crystalline sulfanilamide. Other spare medicines or surgical instruments are equally welcome.

The medical kit, which is specially designed for sub-chasers and patrol boats, is a small portable case filled with essential medications and emergency instruments, complete enough to cover accidents and war casualties until the ship reaches a base hospital. Many of these small craft carry a considerable complement of men, including often a pharmacist's mate. Appreciative letters from their officers to the Committee indicate that the kit is a vital adjunct to the ship's equipment.

The Medical and Surgical Relief Committee of America has distributed, during a three-year period, over a half million dollars' worth of medical and surgical supplies, concentrated foods and vitamins to the civilian and armed forces of the United Nations.

Contributions may be sent to the Society's Office, 1718 M Street, N.W., or to the Medical and Surgical Relief Committee of America, 420 Lexington Ave., New York, N. Y.

The Loren B. T. Johnson Memorial Fund, in the amount of $25,000, to be used for psychiatric aid to children, has been established by Mrs. David S. Barry in honor of her father. Dr. Winfred Overholser, who succeeded Dr. Johnson as President of the Washington Institute of Mental Hygiene, announced this gift, April 11, stating that the trust fund would be used for "the intensive and specialized care and treatment of children in connection with the special objectives of the Washington Institute of Mental Hygiene."

Dr. Johnson was instrumental, together with other public-spirited citizens, in the formation of the Washington Child Guidance Clinic and the Life Adjustment Center. These organizations were merged several years ago and became the Washington Institute of Mental Hygiene, which is supported by Community Chest funds.

Dr. Johnson began practice in 1901 as a specialist in psychiatric pediatrics and maintained his interest in this field throughout his entire medical career. Among the many positions he held were Associate Professor of Psycho-Pediatrics at Georgetown University, psychiatrist for Children's and Garfield Hospitals, member of the District Board of Indeterminate Sentence and Parole, and head of St. Elizabeths Hospital Modern Parole System. He helped to organize and took an active part in the work of the outpatient clinic which was established in the Trinity Methodist Church in 1920. When the services of this clinic were discontinued in 1925 he gave considerable time to the planning and establishing of the Washington Child Guidance Clinic, which opened in 1930.

Dr. Johnson, an Active Member of the Medical Society of the District of Columbia, died December 14, 1941.

At a meeting of the Board of Regents of the **American College of Physicians** in Philadelphia, April 3 and 4, the following members of the Society were elected to Fellowship: Drs. Wyrth Post Baker and Samuel Benjamin. Dr. Bernard J. Walsh was elected to Associate membership.

May 1 was designated as **Child Health Day** by the President of the United States "in recognition of the vital importance of the health of children to the strength of the Nation." In issuing his proclamation the President stated: "... I call upon the people in each of our communities to renew their efforts to promote the health of children in wartime and to take special measures in behalf of those boys and girls of high school age who are combining school with part-time jobs, working during vacation, or entering full-time employment, in order that their safety, health, and normal growth may be fully assured."

National Hospital Day was observed on May 12. Because wartime demands have precluded most peacetime activities, no extensive plans were carried out locally in observance of these two days.

A motion picture, **"Medicine on Guard,"** which has just been released by RKO for public showing, tells the story of the typical wartime community faced by urgent health problems arising from the shortage of doctors. Dr. Carl E. Rice, currently in charge of the Community Medical and Dental Section of the U.S.P.H.S. at Bethesda, Md., is featured in the film. Dr. Rice works in close coöperation with the Procurement and Assignment Service of the War Manpower Commission, and when appealed to by the harrassed local physician, arranges the relocation of a doctor from a less critical area. The film also shows how tuberculosis is checked through the use of the mobile photofluorographic units which are set up in the factories. Chest plates of the workers are taken with a minimum of time loss and expense. This project is directed by Dr. Herman E. Hilleboe. The laboratories of the Bureau of Industrial Hygiene under the direction of Dr. James G. Townsend are shown determining the causes of occupational disabilities.

Graduating and capping exercises for the first group of **"Jangos"** (Junior Army-Navy Guild Organization) were held April 2 in the Medical Society's auditorium. Thirty-two junior volunteer nurses' aides, who received their training at Doctors Hospital, received their certificates from Dr. Charles Stanley White, President of the Hospital. Mr. O. K. Fike, Director of the Hospital, presided. Rear Admiral Ross T. McIntire, Surgeon General of the United States Navy, gave the principal address. "Jango" members are daughters and wives of Army, Navy and Marine officers.

Ground was broken, April 5, for the **Arlington County Hospital,** which will have a 100-bed capacity. On the following day ground was broken for the new **Suburban Hospital** in Bethesda, Md., which will have an equal bed capacity.

Arlington County, Virginia, was one of twenty winning counties in the 1942 National Health Honor Roll Contest, which is sponsored jointly by the United States Chamber of Commerce and the American Public Health Association. This recognition has come to Arlington County for the fourth time in the past six years. Michigan led all other states both in the number of participating communities and in awards won.

Dr. Thomas Parran, Surgeon General of the United States Public Health Service, and **Dr. Hugh S. Cumming,** head of the Pan American Sanitary Bureau, were presented with the decoration of Doctor Lyceaga, April 13, at the Mexican Embassy, by Dr. Francisco Castillo-Najera, Mexican Ambassador, and Dr. Victor Fernandez Manero, Minister of Health of Mexico. This decoration was created by Mexico in recognition of extraordinary contributions to sanitation. Following presentation ceremonies at the Embassy, the Mexican Ambassador entertained at a dinner at the Statler Hotel in honor of Dr. Manero.

At the 23rd Annual Meeting of the **Council of Social Agencies,** April 12, **Dr. Winfred Overholser** was elected a member of the Board of Directors to serve for three years and **Theodore Wiprud** was elected to serve for two years. **Dr. Carl H. Wells** was reëlected a member at large of the Council.

Drs. Charles R. L. Halley and Katherine A. Chapman were reëlected to serve one-year terms as members of the Board of Trustees of the Suburban Hospital Association, Inc. of Bethesda-Chevy Chase, at a meeting of the Association, April 9.

Dr. Daniel L. Seckinger, Assistant Health Officer, addressed members of the Nursing Bureau, D. C. Health Department, on April 10, in the Medical Society's auditorium. His subject was "Some Recent Advances in the Field of Endocrinology."

Dr. Winfred Overholser spoke on "Mental Hygiene in a Troubled World" before the Washington Club, April 20.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the business meeting, May 5, 1943:

Active Members

Thaddeus G. Fibich, 6000 13th Place, N.W.
Wesley Fry, Lt. Comdr., U.S.N.R., U. S. Naval Hospital, Bethesda, Md.
John Andrew Kennedy, 4009 Van Ness Street, N.W.
Robert Franklin Owen, 1601 Argonne Place, N.W.
Henry Robert Pear, 400 Pennsylvania Ave., S.E.
George A. Resta, 2307 Nichols Avenue, S.E.
Walter J. Romejko, 927 17th Street, N.W.
Dorothy V. Whipple, 2721 Connecticut Avenue, N.W.
Uthai Vincent Wilcox II, 1421 29th Street, N.W.

Associate Members

Benvenuto R. Diño, Shoreham Hotel
James Joseph Feffer, 4304 Russell Avenue, Mt. Rainier, Md.

The following applicants for membership will be voted on at the business meeting, November 3, 1943:

For Active Membership

Arthur Abby Davis, Medical College of Virginia—1936
David Franklin Hodge, George Washington University—1939

For Associate Membership

John Elwood Knight, Medical College of Virginia—1908

CORRESPONDENCE

WASHINGTON, D. C., April 10, 1943

DR. A. MAGRUDER MACDONALD, PRESIDENT
MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA
WASHINGTON, D. C.

DEAR DOCTOR MACDONALD:

In coöperation with the United States Public Health Service, the Health Department of the District of Columbia is carrying on a program for the prevention of malaria in the District. The program consists essentially of an entomological survey and the application of certain control measures. It should be understood that the A. quadrimaculatus mosquito has been found in and about Washington.

Fortunately no cases of malaria were discovered during 1942 where it could be proved that the infection was contracted in the District of Columbia. However, some of the cases reported had been in Africa or Puerto Rico and other malarious regions of the United States. The danger of transmitting malaria here will probably increase with the return of more persons who have been on duty in Africa, the South Pacific, Central and South America.

The coöperation of hospitals and of the medical profession, particularly those members conducting or supervising clinical laboratories, is requested to insure prompt reporting to the Health Department of all cases in whom a diagnosis of malaria infection is made. Such reporting should include patients in whom malaria is induced as a therapeutic procedure.

Very truly yours,
GEORGE C. RUHLAND, M.D.
HEALTH OFFICER
COLLABORATING EPIDEMIOLOGIST
U. S. PUBLIC HEALTH SERVICE

BOOKS RECEIVED FOR REVIEW

The Inner Ear. JOSEPH FISCHER, M.D., Staff Member, Beth Israel Hospital, Boston, formerly Associate of Adam Politzer and Senior Otolaryngologist with Gustav Alexander, Policlinic of Vienna, AND LOUIS E. WOLFSON, M.D., Instructor in Ear, Nose and Throat, Tufts Medical School, and Senior Surgeon in Ear, Nose and Throat, Boston Dispensary. Pp. 421, with 77 illustrations. Price, cloth, $5.75. New York: Grune & Stratton, 1943.

Chemotherapy of Gonococcic Infections. RUSSELL D. HERROLD, B.S., M.D., Associate Professor of Surgery (Urology), College of Medicine, University of Illinois, Chicago. Pp. 137. Price, cloth, $3.00. St. Louis: Mosby, 1943.

Principles and Practice of War Surgery. J. Trueta, M.D., formerly Director of Surgery, General Hospital of Catalonia, University of Barcelona; Assistant Surgeon (E.M.S.), Wingfield-Morris Orthopaedic Hospital, Oxford; Acting Surgeon in Charge, Accident Service, Radcliffe Infirmary, Oxford. Pp. 441, with 144 illustrations. Price, cloth, $6.50. St. Louis: Mosby, 1943.

Primer of Allergy, 2nd ed. Warren T. Vaughan, M.D., Richmond, Va. Pp. 176, with illustrations. Price, cloth, $1.75. St. Louis: Mosby, 1943.

Operative Oral Surgery, 2nd ed. Leo Winter, D.D.S., M.D., F.A.C.S., Sc.D.(Hon.), LL.D., Professor of Oral Surgery, New York University; Director, Oral and Minor Surgery Clinic, New York University College of Dentistry; Visiting Oral Surgeon in Charge, Bellevue Hospital; Consulting Oral Surgeon, Montefiore Hospital; Chief of Dental Clinic, New York University College of Medicine; Fellow, New York Academy of Medicine. Pp. 1074, with 1211 illustrations. St. Louis: Mosby, 1943.

BOOK REVIEWS

Manual of Dermatology. Military Medical Manuals. Donald M. Pillsbury, M.D., Marion B. Sulzberger, M.D., and Clarence S. Livingood, M.D. Issued under the Auspices of the Committee on Medicine of the Division of Medical Sciences of the National Research Council. Pp. 421 with 109 illustrations. Price, cloth, $2.00. Philadelphia: Saunders, 1942.

After a brief introduction into the basic morphology, the authors give about 14 charts in which they attempt to help the reader arrive at a diagnosis by presenting schematically the typical distribution of common dermatoses. Then follows a well presented discussion of differential diagnosis of locality. Seventy-seven pages of partly excellent black and white pictures cover the most frequently suspected skin diseases of the age group prevalent in the armed forces.

The chapters on treatment and the appended formulary are most valuable and should, after a short study, enable the inexperienced young medical officer to treat common cases with good results. Treatment directions are detailed, the advantages and drawbacks of the different topical medications are taken up.

The discussion of the disease entities is brief and to the point with hints to avoid common errors. Here again much room is given to treatment procedures, which are divided into two groups: a simplified one for the medical officers with no hospital facilities and an extended treatment for Hospital or Sick Bay.

The book is very well written by men with much clinical experience and familiarity with dermatologic publications. It should be a great help to the young medical officer and practitioner and its modest price will no doubt contribute to its appearance in every physician's reference library.

W. T.

Indigestion: Its Diagnosis and Management. Martin E. Rehfuss, M.D., Professor of Clinical Medicine, and Sutherland M. Prevost, Lecturer in Therapeutics, Jefferson Medical College, Philadelphia. Pp. 556, with 63 illustrations. Price, cloth, $7.00. Philadelphia: Saunders, 1943.

Dr. Rehfuss emphasizes the importance of indigestion as a complaint because "to the layman it represents the vast category of conditions both inside and outside the digestive tract that makes him conscious of his digestion."

The author stresses the proper procedure for a thorough, precise history and physical examination as related to gastrointestinal diseases. The chapters on technic and interpretation of gastric and duodenal analysis are particularly good. The section on X-ray examination and gastroscopy is presented with the purpose of having the reader appreciate the principles and values of these diagnostic procedures. The diagnosis and treatment of indigestion due to functional disorders, various organic gastrointestinal diseases, and conditions extrinsic to the gastrointestinal tract are covered systematically and comprehensively. There is considerable discussion about the materials of the diet and diet in disease which should prove to be an excellent section for reference.

The attractive informal style of presentation makes for easy reading, and, although dedicated to the general practitioner, medical students will find important facts to supplement the usual textbooks.

W. H.

(Continued from page 174)

The dearth of complications and the lack of mortality in this series lead one to believe that "primary atypical pneumonia" is a syndrome that carries with it an excellent prognosis.

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(*Continued from page 184*)

N.B. The authors wish to thank Dr. E. Clarence Rice of Garfield Memorial Hospital and Dr. J. J. Engelfried of the Department of Clinical Chemistry, United States Naval Medical School, for their aid in connection with determining the Rh factor in the cases reported.

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Ph.D., C.P.A., Hospital Service Plan Commission, Chicago; Henry E. Sigerist, M.D., Johns Hopkins Institute for the History of Medicine, Baltimore; E. A. Van Steenwyk, Associated Hospital Service, Philadelphia.

(*Continued from page 206*)

dren; contributing to the Community War Chest and to the Red Cross; selling Christmas seals and taking charge of a booth for the District Tuberculosis Association during its annual campaign; continuing the scholarship for the nurse at Providence Hospital, which is a three-year project We did not hold our customary benefit party but instead have appealed to our members to subscribe to a Phantom Party. In this way we hope to replenish our treasury so we can continue this necessary work.

In conclusion, I would like to make an urgent appeal to all Auxiliary members to firmly resolve to attend as many meetings as possible. This is your organization, and it is your duty to attend and to fulfill your obligation not only as a member but as a doctor's wife. We must be ready at all times to assist the medical profession whenever called upon to do so. The response of our members has been most gratifying this past year and I am confident that this spirit will continue in the future in spite of the many extraordinary conditions created by the war.

Mrs. A. Magruder MacDonald
President

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XII *June, 1943* NUMBER 6

THE DOCTOR'S EVALUATION OF PATIENTS' ATTITUDES*

JOHN C. WHITEHORN, M.D.
Henry Phipps Professor of Psychiatry, Johns Hopkins University School of Medicine; Psychiatrist-in-Chief, Johns Hopkins Hospital

LAST year I had the honor and privilege of speaking in this city, at one of your medical schools, on the topic "Psychiatry as a Basic Medical Science." The discussion then dealt in rather large and general terms with the contributions of psychiatry to the understanding of human nature and the opportunities for teaching some of the medically significant principles of human nature, for the improvement of medical education and the better medical care of all patients. The emphasis was primarily upon those elementary principles of human nature and of psychiatry which should form part of the professional understanding of every medically trained person rather than just the specialist.

I appreciate the opportunity to speak again to my colleagues in Washington, and I take this opportunity to discuss another topic of potential interest and importance to all physicians. Curiously enough, in many places, the medical profession has not exhibited any overwhelming eagerness to gain psychiatric insight. In recent years, however, there has been evident a greater desire for genuine collaboration and mutual understanding. The older attitudes of disdain or indifference must have rested in part upon the false identification of psychiatry as the mere business of custodial care of lunatics, and in part upon the false dichotomy between organic disease and functional or nonorganic disease, organic disease being considered respectable and all other kinds being considered "phony." The more recent desire for rapprochement arises among physicians, I think, from two principal sources: first, an appreciation and respect for the better knowledge of human nature gained by psychiatric study; and second, an increasing appreciation of the importance of personality factors in determining ill health and especially the crucial importance of personal emotional experience in upsetting physiologic mechanisms. The first of these reasons is not as big as we might wish because many doctors have not had much opportunity, at first hand, to learn that psychiatrists have gained a better understanding of human nature.

I ask your indulgence, therefore, for a brief recapitulation of certain general psychiatric developments, interesting in themselves but even more interesting as leads to improving the general competence of the medical profession in dealing with the vagaries of human nature. I shall speak first about specialistic psychiatry, principles developed in the care and therapy of psychotic and neurotic patients, and I shall, for my purpose here, characterize and discuss three levels of psychiatric study, formal, epithetic and thematic.

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* Read before the Society, March 31, 1943.

The most elementary and superficial level of psychiatric study is what I have called here the formal. All of you have had some contact with that type of work and will recognize promptly what I mean. I mean the symptomatologic description, analysis and delineation of types of personality disorder. These types were usually conceived of as specific mental diseases, for example, involution melancholia, dementia praecox, manic-depressive insanity, general paresis, paranoia, etc. Such study at its best performance called for a close examination of the patient, and a meticulous scrutiny of his behavior to detect whatever features were definitely abnormal or pathologic, and then the comparison and evaluation of such "positive findings" to arrive at a classification or diagnosis. In the keenest development of psychiatry at this level, as exemplified in Kraepelin's clinic, there was a clear distinction between form and content. For example, in regard to hallucinations, the occurrence of hallucinations was primarily to be established as a definite abnormality of psychic function, characterized as visual, auditory, olfactory, etc., with, perhaps, some consideration of the degree of absurdity, but with the definite understanding that the content was not important. It did not matter what the voices said.

As a matter of history, it so happened that the period of high interest in this formal descriptive level of study was contemporaneous with a fairly elaborate development of mental status outlines and forms for examination and recording. It is perhaps inevitable that such parallelism would occur. Systematic records began to have prestige value, and a good psychiatric training came to be almost synonymous with the ability to write up "a full mental status report." One result was to fix in fairly rigid form the style of recording the examination of the patient in terms of a formal resumé of abnormal items. Some of the remote consequences of this kind of training were unfortunate. I have had a number of internists in several cities tell me of experiences like this: "I like to keep up with the newer things, and when I saw that my colleagues elsewhere were getting real help from their psychiatric associates, I asked for consultations from a psychiatrist on some of my patients who seemed to have personality difficulties; but I just got back a report telling me how well the patient could subtract 7 from 100, that she was orientated in the three spheres, that her sensorium was clear and that no hallucinations, delusions or ideas of reference could be elicited." This was the end of psychiatric collaboration for that internist. Well, it is obvious that this type of mental status examination has little value in helping the internist to deal with the personality problems of his patients.

The second level of psychiatric study is what I have called the "epithetic," meaning by that to characterize an interest in the terms or epithets by which to designate the personal qualities of patients. "Adjectival" might be a nicer word for it. This adjectival or epithetic method of psychiatric study represented a stage of progress beyond the earlier preoccupation only with what was pathologic in the patient, and served to record the psychiatrists' growing appreciation that some attention to the wide range of human qualities and characteristics which lie within normal limits may be helpful in understanding the patients' development into full-blown mental illness. Adolf Meyer perceived in some dementia praecox conditions the culmination of bad mental habits. He and

August Hoch singled out one very significant characterization, the "shut-in" personality. Bleuler contributed "schizoid" and "syntonic." Jung probably scored the all-time high in popular acceptance with his fascinating dichotomy of "introvert" and "extravert." Quite recently, from a nonpsychiatric source, we hear of Sheldon's "cerebrotonic," "somatotonic" and "viscerotonic" types of personality, in association with an elegant refinement of Kretchmer's body-types.

Psychiatric interest in personality was not restricted however to this "epithetic" level of typing and classifying. The individual patient, with all the rich content of his life experience, pathologic or normal, got the main spotlight of psychiatric interest. In large measure this brought a greatly increased interest in content as distinguished from form. This was a natural development from Freud's type of intensive study, and interest was stimulated by the remarkable revelations of psychoanalytic research, indicating unexpected connections between early life experience and certain rather specific forms of character development; but the psychoanalytic school was not alone in this work. Among other workers, too, biographic attention was focused on the individual evolution of personality trends as emotionally conditioned styles of interpersonal adjustment. The importance of personal emotional insecurity in personality development was overwhelmingly well established by many studies of the behavior problems of children. The queer statements and odd behavior of psychotic patients were more intensively scrutinized for clues to the character of the patient's preoccupations as understandably related to the issues of his pre-psychotic and post-psychotic life. It is this level of psychiatric study which I have designated as "thematic." I mean to include under this designation of "thematic" the study of the special themes of a patient's preoccupation, and also the study of personality trends as they have developed out of plastic native disposition under social pressures. Such studies depend largely upon skill in eliciting and recognizing attitudes. How is this done?

On one side the business of recognizing a person's attitudes lies so much in the realm of obvious common sense that it seems superfluous to discuss it; on another side it ties in with complicated technics of exploring the unconscious through free association, dream analysis and the acute observation of gestures, a region in which the "personal equation" of the observer may require rather elaborate study and control. Yet this business of evaluating attitudes is the topic which I undertook to discuss this evening. Some of you may properly wonder why I was so masochistic as to pick such a painfully complicated topic. The chief reason for discussing the clinical evaluation of attitudes lies in its practical, clinical importance both for the specialist and for general medicine. Physicians more and more appreciate that the presence of organic lesions does not preclude the operation of emotional and neurotic mechanisms; the patient is still a person, subject to the physiologic and pathologic effects of the clashes which may occur between poorly integrated attitudes. The importance of such emotional factors becomes even more acute, so to speak, in dealing with chronically ill patients. For example, the dangers and disabilities of an anxiety neurosis are considerably increased by the simultaneous existence of coronary disease in the same man, and vice versa. I mean by vice versa that the dangers and disabilities of coronary disease are considerably increased by the simultaneous existence of an anxiety neurosis. As a matter of special pertinence today, since a large proportion of military casualties are of a psychiatric type yet cannot possibly be turned over to psychiatrists as promptly as is necessary for good treatment, every physician in uniform can be potentially more useful by having a grasp of some practical psychiatric principles.

It is therefore a very practical matter to inquire as to how the medical man can be helped to gain a further insight into, and some increased skill in the use of, psychiatric methodology at this third or "thematic" level, which deals with attitudes. As a schoolteacher, now, I am of course personally much preoccupied with pedagogic aspects of this problem for the purpose of training young doctors for most effective service. You will perhaps pardon me, therefore, if my present discussion of this matter is contaminated by some of the dry chalk dust from the lecture room or by a somewhat dogmatic hangover from ward rounds and student conferences.

I wish, with your indulgence, to repeat some statements which I made at a meeting in this city eight years ago in a symposium on the study of personality functions:

"The most obvious demonstration of the attitudes operating in a patient occurs in the situation labeled 'mis-identification'; when a patient misidentifies the nurse or doctor as a character—say husband, wife, father, uncle or lover—significant in his or her past life, invests him with the characteristics of that person (as conceived by the patient), and behaves toward him in some definite pattern, affectionately or contemptuously or spitefully or with exaggerated respect, etc. Such a situation reveals something of the patient's sentiments toward the character so personified."

"The sentiments, or attitudes, recognized and evaluated by such study . . . do not reach an unmanageable diversity. There are many recognizable repetitions. The childhood set-up, with its relatively few characters, provides the paradigms for most subsequent sentiment development. One might say that the sentiments of the adult are the sediments of his childhood.

"There are even quite elaborate systems of sentiment-organization which are recognizably alike in different people. There is apparently in everyone a system of loyalty sentiments and security sentiments, focused on the same persons or ideals, and knit closely together. There is a sentiment of independence, appearing in the reverse as a resentment of control, which has a marked growth in late adolescence, and not infrequently gets snarled with the loyalty-security system. There are of course innumerable complicated interactions of these main systems of security, loyalty and independence, involving the family, childhood gangs, school and college loyalties, hero worship, professional ethics and prejudices, or political, scientific and religious faiths. In the reconstructed histories of some patients one can trace the successive transference of such conflicts from one arena to another, without much growth or progress; in others, each new scene of adjustment occasions an enlargement and liberalization of the sentiments."

This quotation deals particularly with themes, attitudes and personality trends which are of direct practical significance in the kinds of patients we call psychotic. Nonpsychotic persons do, not infrequently, show reactions and behavior calling for similar type of study and understanding. In particular, there are a number of personality trends neatly characterized by words drawn from experience with neurotic patients. The obsessive trend and the perfectionistic attitude are well known. The sympathy-seeking attitude of the hypochondriac is often obvious. The seductive saintliness of the hysteric may be sensed by the acute observer while the patient enters the room and sits down.

I wish now to go a bit more intimately into the consideration of how the thematic level of study, that is, the study of attitudes, sentiments and personality trends, works out in the psychiatrist's own special field. Probably the most genuine assurance of validity and reliability comes from intimate experience with psychotherapeutic success and failure. But there is another check on validity too and that is through checking predictions. When behavior can be predicted in minute detail one gains assurance as to the validity of the basis of prediction. This assurance of validity is enhanced when one succeeds in predicting unique events, not merely guessing that Mary Smith will be doing tomorrow and a year from tomorrow the same sort of things she did yesterday and the day before, but rather a flat-footed prediction of something different which Mary is about to do. In an educational institution, I think the upper staff perform a distinct service for the juniors when they utilize opportunities to do this sort of thing; and I think it may be useful at this point if I tell briefly of a few incidents in which a fairly thorough understanding of the preoccupations and attitudes of a patient permitted the prediction of behavior. The incidents chosen are relatively trivial.

Illustrative Cases

Case 1.—A senior psychiatrist passed on to one of his junior assistants the care of a troublesome and belligerent paranoid young woman. After a few weeks during which the junior kept reporting regularly upon the progress of events and kept on regretting the implacable hostility of his patient, the senior said, in effect: "Now the manner in which Miss A has expressed to you recently her delusions about the immoral conspiracy against her indicates that she is somewhat nearer a recognition that her own sexual desires are implicated. She has an appreciably different attitude than during any of the previous months of treatment. She is, if one may put it crudely, just aching to be raped, and it is probable that any physical violence directed against her by you would now elicit a sexually submissive reaction, the opposite of any she has shown here before. Such an opportunity to recognize her own attitude might help her to understand herself better. Just do a venipuncture tomorrow morning, for some routine laboratory test, and see if she doesn't accept the venipuncture eagerly as a sexual advance. Furthermore, there was a little drawing of a girl's body which she made two years ago on the margin beside one of Swinburne's poems which may help us guess in some detail just how she will proceed to express her sexual wishes. Her right leg will be thrust out in an awkward and rigid bent position and she will ask you to place your hand over her left breast." The junior physician evinced appropriate skepticism, but nevertheless did the venipuncture next day in a routine fashion, and later reported in some astonishment that the patient had behaved exactly as predicted. Unfortunately, in this instance, the hope for a distinct therapeutic gain was not realized. The patient did, indeed, drop her paranoid formulation promptly, but sank instead into a wretched and protracted depressed state.

Case 2.—A junior staff member, reporting to the senior psychiatrist upon the progress of a depressed young adult woman patient, told in some detail about the patient's intense preoccupation with the memories of her early childhood. She was complaining rather bitterly of the hardships and handicaps put in the way of the mother's affectionate devotion to the baby, i.e., to the patient herself when a baby. Now, there was available a considerable body of information about this patient which emboldened the senior to remark, in effect: "If this woman were Catholic, instead of Jewish, we could expect her to reënact this same theme now in reverse. She would be playing the Madonna, would consider herself pregnant, and would be most careful and considerate in the prenatal care of this precious baby, which would be herself, glorified." The junior staff member remarked that the patient had actually grown up in an intensely Catholic neighborhood, had gone to Catholic schools and still used phrases like "Our Lady"; also, that the patient had recently been taking lots of short rests in bed, with vague complaints of lower abdominal distress, in a manner which Dr. B., after he saw her on rounds, had already commented upon as possibly foreshadowing a pregnancy delusion. A few weeks later the patient was frankly and openly expressing the pregnancy delusion.

Case 3.—One psychiatrist sought assistance from another in clarifying the rather tangled themes which had been emerging during the study and therapy of a private patient, who was unknown to the second psychiatrist. The patient had been rather reticent in the discussion of reality situations but had spontaneously brought in some accounts of her dreams. In the latest of these the patient had reported dreaming about an innocuous and apparently meaningless visit to the home of a Dr. Miller, nevertheless reporting that there was a certain uneasiness in the dream. The consultant interrupted to comment that this was probably a deliberate falsification by the patient, because there were at least three clearly discernible themes in her current preoccupations which would make it significant to dream about visiting in the home of a Dr. Lewis but no discernible sense at Dr. Miller's, and that the patient seemed, on the evidence at hand, sufficiently aware of the implications to face this in her dreams, but seemed not quite prepared to be fully frank with the psychiatrist. During the psychiatrist's next interview with the patient, which occurred an hour after this consultative discussion, the matter of this dream was brought up by the patient, whereupon she was asked, "Why did you say that in this dream you were at the home of Dr. Miller?" The patient blurted out in some astonishment, "Why, how could you know it was at Dr. Lewis'?" Fortunately, this led to a more frank and open basis of discussion.

In presenting these three trivial incidents, I have only a minor end in view, to exemplify in specific detail the validation of psychiatric formulations based on the study of attitudes, through "calling the shots," so to speak. These examples are not very weighty, they are chips from a psychiatric workshop, rather than finished products. Many active psychiatric groups could present wagonloads of such chips. These few trifling fragments are presented at this point because such chips may sometimes show, more clearly than finished products, the methods and the reliability of psychiatric work at the thematic level, as I have called it, where one works toward the recognition and understanding of attitudes rather than just describing symptoms or applying adjectives. It is quite clear, I think, without further elaboration, that this sort of detailed prediction based on the thematic level of psychiatric study cannot be made from psychiatric data of either the formal or the epithetic level.

We must recognize, of course, that a psychiatrist who is endowed with time, and assistants for research, has opportunities for such study of patients vastly greater than anything practicable for the regular physician. But the medical man does have two exceedingly good opportunities to size up the attitudes of his patient. One is the history-taking interview and the other is the physical examination. These two may often be combined, to their mutual improvement, and they may be combined with what is called here the attitude-examination, with still further improvement. One does not expect, of course, that the medical student, at the completion of his work for the degree, will be highly skilled in any of these three arts, or their combination, but it seems reasonable to try to help him get a basic orientation which will make him capable of considerable future self-development in the recognition and evaluation of patients' attitudes.

In attempting to train students in the attitude-examination, it has not seemed wise to prepare a routine outline or series of questions. One of the essentials of a good attitude-examination is a degree of freedom which permits and encourages the patient's spontaneity. An understanding of the more elementary principles of dynamic psychopathology seems a better guide than any special outline. Nevertheless, a few pertinent reminders may be of use.

1. First and probably most important of all, the chief complaint of the patient should be recorded in his or her own terms. The pernicious practice of translating the chief complaint into medical jargon may eliminate one of the most useful cues to the patient's attitude about this distress or disability.

2. It is well to note whether the patient came by himself to see the doctor, or whether at the urging of others or brought by relatives. Does he resist or welcome questions and examinations? Does he sit tense and anxious as if poised for flight? Does he get relief as he talks, or does he increase his tension?

3. Note the patient's manner of recounting his symptoms. Does he proceed with an air of all-absorbed interest, dramatizing pains and disabilities and dwelling upon them in an appeal for sympathy? Does he bring a piece of paper with detailed notes? Does the story of his illness have to be dragged out of him? Does he meet questions with hair-splitting qualifications or arguments? Does he appear indifferent to grave disabilities?

4. As he tells about the course of his illness, note how the patient refers to the effects of his illness on his responsibilities or on his home life. Note his attitude toward those who have suffered or been inconvenienced by his illness, as compared with his own distress.

These fragmentary suggestions are not offered as an outline of examination but as hints to help the doctor gain some impression of the patient's surface attitudes toward his illness, toward himself, toward the doctor (and hospital or clinic), and toward his responsibilities and other persons concerned.

The physician who can recognize and evaluate with reasonable correctness these personal attitudes of his patient, and who has at his command a fair working knowledge of psychopathologic dynamics, will have gained thereby a point of view on his patient's personal attitudes in positive terms. This appreciation of attitudes does not exclude organic pathology, nor does it depend upon the diagnosis of a functional disorder by exclusion of organic lesions. Even when the patient's attitudes are pathognomonic of one of the classical psychoneuroses, it is still important to know if he has some organic disease. Hypochondriasis does not immunize to cancer, nor does hysteria immunize to brain tumor. When the patient's illness appears altogether "functional" in origin, as the phrase goes, the physician who has taken advantage of his opportunities to evaluate the patient's attitudes will find, I think, that he has not driven the patient out on a diagnostic limb simply to be cut off and dropped into the lap of another specialist, but that he has established some common ground of respectful mutual understanding by which he himself may be therapeutically useful, or by which he may constructively aid the patient to seek and accept more specialized psychiatric assistance.

High blood pressure is found to be common over age of 40. On the basis of blood pressure readings on 14,849 persons over 40 years of age, COMMANDER A. M. MASTER, M. C., U.S.N.R.; H. H. MARKS, A.B., Bethesda, Md., AND CAPTAIN SIMON DACK, M. C., Army of the United States, report in *The Journal of the American Medical Association* for April 17, 1943, that they believe "The presence of hypertension at age 40 and over is so common that a mild degree and perhaps even a 'moderate' degree can no longer be considered abnormal. Limits of normal blood pressure at these ages should therefore be raised. . . ."

From their findings the three authors estimate that 41 per cent of the male white population of the United States and 51 per cent of the female white population 40 years of age and over would be expected to have high blood pressures of 150/90 or over. It is generally considered that in the younger age groups blood pressure readings of 120/80 to 130/80 are normal. The authors estimate that, according to their findings, at the age of 50 and over, 50 per cent of males and 62 per cent of females would have blood pressures of 150/90 or over, at the age of 60 and over the ratio would be 60 per cent for males and 70 per cent for females, while at the age of 70 and over it would be 66 and 74 per cent, respectively.

In the introduction to their report they point out that "The problem of hypertension is a fundamental one. Together with coronary sclerosis it is the most common form of heart disease and probably the largest single cause of death. This is doubly so if only those over 40 are considered. Furthermore, hypertension is important in respect to the role it plays in other diseases, e.g., arteriosclerosis of the cerebral, renal and coronary vessels.

"The incidence of hypertension in persons over 40 has become increasingly important because there are now millions of people who survive this age. One third of the present population is 40 years or over and it has been estimated that in 1980 nearly one half will be. . . ."

In their survey the three authors determined the incidence of hypertension in each decade of life according to seven limits, namely, 140/90 or over, 150/90 or over, 150/95 or over, 150/100 or over, 150 millimeters or over systolic, 90 or over diastolic and 95 or over diastolic. The first figure is the systolic or maximum pressure which occurs at the time of contraction of the heart. The second figure is the diastolic or minimum pressure which occurs when the heart is dilated.

In their study they found that "On the basis of the customary limit of hypertension, 150 and/or 90 or over, a little over one fourth of the men have hypertension at ages 40–49, a little over two fifths in the next decade, considerably more than half in those 60–69, nearly two thirds in those 70-79 and slightly more in the ninth decade. Among women . . . in the first age group, 40-49, almost a third have hypertension, more than half in the next decade, more than two thirds in the seventh decade and about three fourths in the eighth and ninth decades.

"Turning to the lowest limit of hypertension, namely, 140 and/or 90 or over, it is found that about one third of the men between 40 and 49 years of age have hypertension, but this proportion increases rapidly for the next three decades, until it is over three fourths in the eighth. Among women the incidence of hypertension of this degree is approximately 40 per cent between the ages 40 and 49, rising rapidly and exceeding the three quarter mark between 60 and 69. The proportions continue to increase, but more slowly, through the ninth decade, when 85 per cent of the women have a blood pressure of 140/90 or over. . . ."

MEDICAL ASPECTS OF CHEMICAL WARFARE

II. The Vesicants and Their First-Aid Treatment*

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THE essential problem in chemical warfare is caused by the vesicant agents because they can produce any or all of the serious chemical injuries and especially because contaminated patients may produce casualties among any unprotected personnel. Besides producing the typical blister effect on any part of the skin, the vesicants through their general ability to damage all types of tissues are actually more potent than phosgene as lung injurants and cause far more serious eye lesions than any true lacrimator.

Since its use by the Germans in 1917 mustard agent (a heavy oily liquid,

$$Cl \cdot CH_2 \cdot CH_2—S—CH_2 \cdot CH_2 \cdot Cl,$$

bisbeta chlorethyl sulfide) has been properly known as the "King of War Gases" and as such may be studied as the typical vesicant. Its amazing potency as a lung injurant, where 14 mg. ($\frac{1}{5}$ grain) of its vapor by inhalation is held to be a lethal adult dose, furnishes the basic argument for the most terrorizing forms of gas warfare propaganda that have come out periodically in the last 25 years. In this connection it is perfectly true that one man might carry enough to destroy the entire population of New York City. Actually, however, in World War I more than 65 times this much mustard was required to cause a single fatal casualty, while for the 3,000 who were actually killed an amount of agent was used capable theoretically of killing the entire population of the earth 50 times over. Thus, on the basis of actual experience at a time when gas masks and other protective equipment were much inferior to that which we have today, we might expect that it would take more than 400 bomber loads of mustard to kill as many Washington citizens as automobiles did in 1942.

Mustard agent evaporates slowly to form a vapor which is 5.5 times as heavy as air, is chemically quite stable, and is very persistent. It is invisible and may be odorless in casualty-producing concentrations. Mustard gas is readily and quickly taken up by all tissues. Exposure to any concentration of vapor or even liquid is painless except in the eye.

The skin may be penetrated by vapor in 5 to 10 minutes but show no sign of reaction for 6 to 24 hours, when painless inflammatory changes may appear. Though the exact mode of action is in doubt, it may be by intracellular hydrolysis to free hydrochloric acid. Since the advancing necrosis of tissue is attended by nerve and blood vessel destruction, typical lesions are painless and attended by little or no surrounding inflammation or systemic reaction. This is by sharp contrast with thermal burns even though the mustard lesion may be extensive enough to present in 12 to 48 hours coalescing blisters containing up to a liter or more of watery fluid. Smaller lesions bear a close resemblance symptomatically and by appearance to those caused by poison ivy. Mustard lesions have characteristically retarded healing; a 1 cm. blister without secondary infection may not be completely healed after 6 weeks.

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* Read before the Society, January 29, 1943, at the final session of the second course on "Medical Aspects of Chemical Warfare."

The essential problem of treatment is prevention of secondary infection. Blisters may be removed under asepsis and the area covered with a protective spray such as isoamyl salicylate containing 2 to 5 per cent sulfadiazine. This spray may be repeated 2 to 4 times a day for 2 days and then daily for 10 days. For extensive lesions the sulfonamide may be omitted after the first several sprayings to avoid excessive absorption. For localized lesions the casualty may continue to work during healing.

The eyes are the first site of mustard action. Odorless concentrations may produce lesions in 1 or 2 hours. The progress is from lacrymation to conjunctivitis with swelling of the lids and photophobia. Almost any degree of corneal or other eye damage may result. The lesions, once established, can only be treated symptomatically but require the best available ophthalmologic care.

Inhalation of mustard vapor constitutes the greatest hazard to life. Milder concentrations may cause only a coryza or laryngitis or, more extensively, a tracheobronchitis. Longer exposure leads to true lung injury culminating in pulmonary edema. In the event that pulmonary edema is avoided or injury is chiefly in the larger air passages, succeeding respiratory infection is a real danger.

Lewisite ($Cl—CH=CH—As\ Cl_2$, beta chlorvinyl dichlorarsine) is an oily, amber-colored liquid whose vapor is 7.1 times as heavy as air but not quite as persistent as mustard. Developed by the Americans too late for use in World War I, lewisite has greater multiplicity of action than any other agent in that besides producing the pulmonary, eye and skin lesions of the typical vesicant it also by virtue of its arsenic is a systemic poison. Lewisite action is more rapid than that of mustard, and it is more irritating. Skin lesions may be accompanied by subcutaneous damage or even underlying muscle necrosis. Unlike the clear harmless fluid from mustard lesions, lewisite's cloudy blister fluid may contain lewisite itself, vesicant oxides of lewisite, or toxic amounts of arsenic. In amounts of 1.5 to 2.0 c.c. lewisite on the skin may cause death of an adult from systemic poisoning. The treatment is the same as for mustard lesions.

All of the foregoing has to do with the medical problem presented by casualties resulting from contact with chemical vesicants. The further aspects of chemical warfare which must be considered in civilian defense have to do with the fundamental problems of prophylaxis and first aid, and these problems are at their maximum in connection with the vesicant agents.

Prevention of chemical injury is relatively simple for the large majority of civilians who have no official duties out of doors during an air raid. These people have only to obey the existent law to seek shelter and, in addition, if the gas alarm is sounded, to get above ground level and keep doors and windows shut. In spite of the persistence of these agents, they are heavy enough that there would be relatively little danger indoors, above ground.

For the outdoors personnel, gas masks are the outstanding need. The civilian mask used properly will give almost perfect protection to lungs and eyes against vesicant vapors. Also of great though secondary importance is protective clothing. It is well to realize here that only partial protection can be given by any clothing which is tolerable to wear for protracted work. In the absence of formally prepared garments, heavy clothing of any kind is relatively effective. Waterproof garments such as raincoats are quite satisfactory makeshifts. Since the face and neck, wrists and ankles are especially exposed, these parts should receive special attention in covering efforts. Although mustard and lewisite will penetrate rubber slowly, surgeon's gloves are protective for 30 to 60 minutes.

Under conditions of actual exposure civilians should use the best available clothing protection and after $\frac{1}{2}$ to $1\frac{1}{2}$ hours make every effort to go through some decontamination routine.

First aid for these casualties is of the utmost importance. This is indeed the only specific treatment possible for chemical injuries, since by the time hospitalization can be effected lesions are already present which can only be treated symptomatically. Furthermore, since chemical injuries such as those caused by the vesicants are confirmed in from 5 to 15 minutes, even first aid must be instituted near the scene of injury and usually before medical care is available. This fact in the first place will prevent the establishment of effective formal decontamination stations, and secondly will necessitate the widespread education of the public in simple first aid measures for chemical injury. This coördinated educational program is without doubt the greatest present need to perfect our civilian protection against possible chemical warfare.

For vesicant contamination to the skin the essential first aid steps are simple and may be performed for himself by any layman before medical aid is available:

1. Wash the eyes thoroughly with water, especially under the lids.
2. Take a thorough soap and water bath all over, including the hair. Showers are preferable to tub baths.

Secondary first aid measures are aimed at the prevention of further casualty production. Patients should remove the outer garments before entering a building for the bath and should complete undressing indoors, discarding clothing into a closed container.

Eye irrigations may be done with 2 per cent bicarbonate of soda. No effort at chemical neutralization or antisepsis should be made in the eye nor should the use of local anesthetics, bandaging, or application of ice be considered.

During the first few minutes mustard liquid or strong concentrations of vapor may be removed by gently swabbing the skin area with such solvents as kerosene or with home chlorinating agents. Similar treatment for lewisite should be with 8 per cent hydrogen peroxide. This is only an aid but never a substitute for the soap and water bath. Swabbing cloths should be carefully discarded into closed containers.

Obviously if such steps are to be taken, as they must to be effective, by the prospective casualties themselves, the diagnosis of vesicant contamination will rest almost entirely on the probability of exposure. Where there has been probable exposure without gas mask protection and there are any signs of oxygen deficiency, such as respiratory stimulation, elevation of the pulse rate, or the slightest color change, the tentative diagnosis of pulmonary damage should be made.

Bearing in mind the latent period in symptom development and that the essential problem in pulmonary injury is oxygen deficiency leading to and being aggravated by pulmonary edema, first aid efforts must be directed toward the prevention of this development. All steps are aimed at the conservation of an already lowered oxygen reserve and the lowering of the oxygen requirement:

1. Absolute rest to decrease oxygen consumption
2. Assumption of the lying down position with the head low for better brain circulation
3. Conservation of body heat by blankets if necessary
4. Direct evacuation to a hospital on a stretcher.

These measures may be lifesaving to the pulmonary or any type of shock casualty; they can hardly be harmful to victims of any type of bombing injury. Treatment of patients with vesicant skin and clothing contamination and accompanying pulmonary damage or other injury requiring hospitalization requires that every hospital receiving station provide a somewhat segregated decontamination station, how-

(*Continued on page 247*)

THE PROBLEM OF VARICOSE ULCERS OF THE LEG

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THE stubborn chronicity of varicose ulceration and the economic losses suffered by both patients and hospital are vastly out of proportion to the severity of the surgical condition itself. The prevalence of varicose ulcer is not fully appreciated and because of its benignity and lack of mortality, sufficient consideration has not been given it. The physician is today seeing only a moderate percentage of sufferers for the reason that the patients grow tired of ineffectual treatment, avoid the doctor, and seek help from the many well-advertised remedies and cures. The physician too becomes dismayed when these patients present themselves day after day with little improvement. Outpatient clinics see many varicose ulcers and apply local treatment which aids temporarily, but everyone has had the experience of 'Unna paste boots' applied time and again without permanent advantage.

The purpose of this paper is to stress the need for more standardized methods of approach and treatment of chronic varicose ulcers, to draw attention to the etiologic factors, and to explain a method of procedure based upon physiologic understanding.

ETIOLOGY

Since the varicosed condition of the veins with the resulting stagnation of fluid in the tissues is the basic factor producing the ulcerations, it is best to discuss first the abnormal physiology which causes varicosities.

Many factors have been brought forth to explain the onset of varicose veins, including such things as tight garters, pregnancy, occupations requiring hours of standing or heavy lifting, low-grade phlebitis, endocrine imbalance, and hereditary predisposition. The last named factor seems to be the basic fault, and the others probably only initiate the onset of varicosities. In the more advanced stages of varicose veins there is no doubt as to the failure of saphenous valves as was adequately shown by McPheeters and Merkert.[1]

The presence of severe varicose veins does not mean that the individual will develop ulceration, and on the other hand ulceration frequently develops where varicosities are at a minimum. In the latter group the factor is believed to be purely nutritional, as pointed out by Luke.[2]

The increase of reverse pressure in the saphenous vein which will average 88 mm. Hg according to McPheeters causes a separation of the spaces between the cells of the terminal capillaries and allows stagnation of plasma to occur in the tissues, producing edema. Such stagnation and congestion causes not only edema of the area involved but bathes such tissues in a fluid which is poorly oxygenated, lacking in nutritional elements, and saturated with products of metabolism which, if not eliminated, lead to necrosis and death of cells. Produced at the same time is lymphatic stasis with resultant poor drainage of the site. The stasis is thought to be due to the mechanical blockage of the lymphatic channels by the induration present.

Baynton,[3] a British physician, wrote during the French Revolution concerning varicose ulceration that "this disease is due to the unfavourable situation of the parts which are placed at a remote distance from the fountains of life and heat, and are obliged to return the venous blood and lymph to the heart under peculiarly unfavourable and disadvantageous circumstances."

With the presence of such poor tissue resistance it is easy to understand why infection from teeth, tonsils, etc., or from bruising or scratching often are the initiating elements. The actual ulceration develops due to gangrene of the unhealthy overlying skin. Secondary infection soon occurs, developing rapidly in the poorly resistant tissue, and the ulcer appears as a crater with sloughing base and raised rolled-over border. Cellulitis develops surrounding the area, further impeding circulation and drainage and thus producing enlargement of the ulcer and frequently pain. An ulcer will occasionally produce periostitis when necrosis involves all the layers of skin and subcutaneous tissues.

Histologic section of the average ulcer indicates that the main pathology lies in the skin and that the tissue beneath shows only simple inflammatory reaction. Frequently secondary manifestations of poor circulation are seen in association with ulceration, such as large areas of weeping eczema, and occasionally the entire lower leg will become swollen and brawny due to lymphangitis.

Diagnosis

It should be kept in mind that chronic ulcers of the lower leg may be of various kinds, such as tuberculous, syphilitic, neoplastic, trophic, mycotic, and those occasionally seen in patients with sickle cell anemia. Buerger's and Raynaud's diseases occasionally produce malnutrition of the skin and cause ulceration. The arteriosclerotic patient is the one that might have the above-mentioned trophic ulcer, but these fortunately are rather rare.

The state of the venous circulation of the entire leg must of course be thoroughly known prior to the administration of any treatment. This can easily be determined by the use of the well known Trendelenburg and Perthes' tests. Trendelenburg movements test adequately the competency of the saphenous valves and those of the intercommunicating veins. Perthes' test on the other hand checks the patency and the sucking action of the deep veins. An excellent treatise on this subject was presented by McCallig and Heyerdale[4] and is well worth study if such tests are not thoroughly understood. It is hoped that the confusing terminology often used with these examinations will give way to terms that explain the abnormal physiology, i.e., competency or incompetency of the superficial, intercommunicating, or deep veins.

Regardless of the controversy concerning the problem of single or multiple system failure it is logical to assume that varicose veins are probably a condition involving all the venous system of the lower extremity in varying degrees.

Treatment

With an understanding of the etiology, the correction of the factors at fault should produce a cure, and this is the case. The rationale of treatment involves several factors, namely:

1. Obliteration of the incompetent superficial veins to prevent reversal of the blood flow which has produced the tissue malnutrition
2. Local treatment of the ulcer to produce granulation base
3. Treatment of the surrounding area to produce improvement of drainage
4. Replacement of the skin by grafting in the rare case in which epithelization fails.

Obliteration of the veins can be accomplished in several ways. The most universal in use today are the injection and ligation methods. Although the injection method is used more frequently it entails many more treatment visits by the patient, and the final result is not as satisfactory as has been obtained with the high ligation method. Ligation of the large saphenous vein near its junction with the femoral offers the most satisfactory obliteration of that system, and completely prevents reversal of flow in the tributaries. Occasionally a case will be seen in which high ligation is not necessary if the valves of the vein in the thigh are competent. In cases in which huge varices are present throughout the leg multiple ligations with sectional injection is advantageous. In association with the high saphenous ligation, retrograde injection is done at that time, and future local injection into non-obliterated varices is done while the ulcer is undergoing treatment. A solution of sodium morrhuate and quinine has given the best results. About 4 to 8 c.c. are injected in the average case. The ligation and retrograde injection can easily be done while the patient is ambulant. It is well to wrap the leg with a flannel bandage for the first few days, since this supports the inflamed venous system and gives comfort. The patient is advised that he may get a generalized and severe reaction in the entire leg, but that such is most advantageous. Should this occur relief may easily be obtained by bed rest and elevation of the leg.

The method of ligation-injection adequately adjusts the hydraulics.that are at fault and will in itself do much toward improvement of the ulcer. However, a great deal can be done locally.

Stimulation of proper granulation tissue in the base of the ulcer is essential for proper epithelization. Varicose ulcer has been studied and treated over the past several hundred years and there are equally as many local stimulants advocated. Many of the agents will act satisfactorily in one case but not in another. In my experience scarlet red, gentian violet, and silver leaf as advocated by Isaak[5] have been most favorable. At times silver nitrate in a 10 per cent solution will reduce secondary infection most adequately. Careful studies by many workers,.however, have shown to their satisfaction that bacterial contamination has no relation to the course and healing tendency of the ulcer. It is often of value to trim the border of the ulcer of its thick rolled-over edge. This removes the fibrotic ring and affords a level pathway for epithelial growth.

Although the reversed flow of blood has been obliterated and the ulcer has developed an adequate base for epithelization, one must also remove the stagnant products from the tissues and produce in the area a more constant supply of fresh arterial blood. Here again many methods have been propounded. Among such are the use of the rubber stocking, the elastic wrap, the Unna paste boot, the venous heart as suggested by McPheeters and Merkert,[1] the Klebro bandage, Baynton's adhesive and Elastoplast. The majority of methods have all been tried, but the elastoplast bandage has proven most favorable. It is a light adhesive bandage with elasticity that remains in place, is not cumbersome, and affords compression to the area that is desired. It has all the advantages of the other methods and is more easily tolerated by the average patient. The bandage should be snugly wrapped from the metatarsal area to the knee. The patient is advised to go about his daily business and that he walk more than usual. In walking, the full benefit of the bandage is brought into play, thus giving the desired pumping effect. This action causes the edematous tissue fluid to be pumped up and out of the involved area. The bandage is worn at first for a period of 3 or 4 days, when the progress is noted. If satisfactory the bandage can be kept on for 1 to 3 weeks at a time. Seepage can be easily removed by cleansing with boric acid. The most important criteria in regard to changing the dressing is not the principle of cleanliness, but the maintenance of elasticity.

In an occasional ulcer, failure of epithelization regardless of the method of treatment will be seen. In this case skin grafting must be done. The type graft that has proved to be most adequate and which "takes" with regularity is the small pinch grafts. These are applied in the usual manner, covered with a piece of parawax, and the elastic bandage wrapped about the leg in the usual manner. Some authors report that a full thickness graft is frequently needed, but this has not been my experience.

Failures and Complications

The majority of failures in the treatment of varicose ulcers can be explained upon several errors. The most common faults lie in mistaken diagnoses, treatment when contraindicated, and the more common mistake of poor follow-up care of the patient. It is definitely contraindicated to obliterate the superficial veins in a case with a history of deep phlebitis. This is also true of a patient with marked arteriosclerosis of the legs, as well as of one having any acute infection or focus of infection in the body at the time. Superficial phlebitis should be treated prior to any injection. A patient with widespread eczema should first be treated by bed rest, elevation of the limb, and saline compresses prior to any attack upon the venous system. Injection in such an area will very frequently cause other ulceration.

Fortunately the complications seen following the use of the above method of treatment of varicose ulceration have been few. The coincident phlebitis and lymphangitis cannot be considered a drastic complication, and as a general rule the more widespread the phlebitis the better the result. Occasionally marked edema of the skin develops but subsides with conservative measures. With the use of follow-up injection of the isolated varices one will rarely, through an error in technic, cause some of the sclerosing solution to get out of the veins. If this occurs, sterile saline solution may be injected about the area and such dilution will do much to prevent ulceration. Should ulceration occur, however, the area must be treated immediately. McPheeters[6] suggests excision of the entire area and careful aseptic treatment. This is most advisable as in one case recently seen secondary infection occurred in the newly formed ulcer, and a very severe infection of the entire lower leg resulted.

The most feared and serious of all complications is pulmonary embolism. This may occur in any case of thrombophlebitis but is rare. It is felt, however, and other authors have stressed the same point, that ligation prior to injection greatly lessens the danger of such an occurrence. The fact that the patient is ambulant lessens the danger also.

Summary

Stress has been placed upon the need for more standardized methods of treatment of varicose ulceration. Although individualization is essential, a standard method of attack should always be pursued. Keeping the etiology in mind, one easily sees why treatment of the ulcer first and the veins secondarily is incorrect. High saphenous ligation, with multiple ligations when indicated, accompanied by retrograde injection is the best method of obliteration. Periodic injections of isolated varices during the follow-up treatment may easily be done. Stimulation of granulation tissue should be undertaken following stoppage of the reversed flow of blood. Removal of the stagnant tissue fluids about the ulcer can be accomplished by the use of an elastic supportive bandage, preferably Elastoplast. A most important point is that the patient should use the leg while the bandage is in place to obtain a better result. Skin grafting will occasionally be the factor which greatly shortens the period of healing. Individualization in regard to the length of time that support is necessary should not be overlooked, since recurrences will be prevented in some cases by prolonged support.

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ADVANTAGES OF A TEACHING SYPHILITIC CLINIC IN A HOSPITAL POLYCLINIC

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SYPHILIS and other medical diseases may exist concurrently and present a dual problem in therapy. An Associate[1] in the Department of Syphilology and Dermatology of George Washington University School of Medicine in 1937 presented the problem of syphilis as found in a general medical clinic. The present review of cases for the month of November 1942 continues and develops certain phases of this study.

The Syphilis Clinic of the George Washington University Hospital is a teaching center for the senior students of the medical school and interns of the hospital. Instruction in diagnosis, treatment and technic of antisyphilitic therapy is given under the immediate and continued supervision of a member of the Department of Dermatology and Syphilology. Various groups of seniors on a rotating schedule and interns meet regularly at this clinic.[1]

In comparison with large and busy public health clinics, this one is comparatively small, and an excellent personal relationship exists between the attending physician and the individual patients. The service is not unlike that in a private doctor's office, in which the patient is given individualized attention and treatment. This is responsible in a large way for the regularity of attendance and the continuation of therapeutic treatment. Contrasted with the aims of the public health clinics, which, too often, are concerned with mass production, volume and community health statistics, this clinic has the time to individualize the therapeutic treatment of the patient. The services of the highly trained and experienced physician of this clinic are utilized to their fullest extent. Similar to the veneral disease clinics in decentralized polyclinics of hospitals in St. Louis,[2] the staff of this service coöperates with all medical and medicosocial agencies in furthering the control of venereal diseases. It is actively participating in the teaching of methods in venereal disease control but never underestimating the value to the patient, in this personal relationship of physician and patient. To any successful program the patient's coöperation is essential.

Clinic sessions are held twice a week with separate days for men and women. Both white and colored patients, 14 years of age or older, are admitted upon presentation of a "pass" from the Health Security Administration[3] which indicates eligibility for clinic care.

As part of the public health program to reduce the spread of venereal diseases, routine serologic testing of the patients admitted to the dispensary for a general physical examination is done. Early syphilis is often symptomless, and it is interesting to note that 55 per cent of the intake of this clinic was from patients seen in a general medical clinic of this dispensary and whose routine serologic reports indicated the need for antisyphilitic therapy. The remaining group was directed from various hospitals in the community not having a venereal disease clinic. Four patients presented themselves for therapy.

During the month of November 1942, 38 per cent of the patients in this clinic were white and 62 per cent were colored. Male patients formed 52 per cent of the case load, while 48 per cent were female patients. The highest peak of the colored patients fell in the 21–25 year age group, while that for the white patients fell in a slightly higher bracket, the 26–30 year age group. There is a second rise for both colors in the age group, 41–55 years. Three patients under 21 years of age were admitted for treatment.

The majority of the white patients were in the 46–50 year age group, while the majority of the colored males were in the 31–35 year age group. Most of the white females were in the 26–30 year group, while the majority of the colored females were in the 21–25 year group. In the study[1] in 1937, this Department found syphilis slightly more common in colored females than in colored males, but the opposite in the white patients.

In this case review there were 41 per cent of the patients who were single and 44 per cent married, while the remaining were either widowed or separated. The study does not indicate the number of offspring of these married patients. In seeking contacts from diagnosed patients, the need of individual follow-up is strongly recognized, but the Department is handicapped in trained personnel.

In considering the types of employment of the patients in this review, it was shown that 41 per cent of the individuals were classed as "food handlers" and 59 per cent were in the "non-food-handler" group. Fourteen had no occupation. The majority of the patients were in the unskilled trades. We are not sure of the wisdom of requiring "food handlers" to present Wassermann-negative cards to the employer of "food handlers." It has been found that examinations of "food handlers" are not outstandingly productive in venereal case-finding.[4] Syphilis is not transmitted through the handling of food except in rare instances. On superficial examination it would seem that other diseases than syphilis and gonorrhea would be more important, such as typhoid fever and dysentery.

It is valuable, however, in case-finding as well as in industry to detect unknown cases of syphilis. The housemaid with syphilis who is under constant treatment, provided there are no open lesions, or the maid who has latent syphilis is an employable individual and safer than the one whose serology is not known, because she will not develop early infectious lesions while the disease is still present. More time could be spent to advantage in education along this line. Physicians and their medical social workers find it difficult to convince employers of the significance of this fact, and much harm and injustice is done to employees with syphilis. However, in industry it is important to rule out the presence of nervous system involvement where the patient's lack of coördination, visual disturbance, lack of memory or impairment of judgment may result in an accident to himself or his fellow-workers. The employer should be guided by, and depend upon the judgment of the physician in charge of the patient.

Gillick[2] states that regardless of the idealist in medicine, the physician still leans heavily upon the laboratory for the diagnosis of venereal diseases, especially syphilis. A review of the serologic reports on these 58 cases showed that 45 per cent had negative spinal fluid tests, 41 per cent had negative Wassermann reactions, and 24 per cent had negative Kahn tests (table 1). In the group there were 46 per cent with positive Wassermann reactions and 63 per cent with positive Kahn tests. The diagnosing of venereal diseases, especially syphilis, was determined largely by the serologic reports.

The writers agree with Moore[5] that the best way to recognize the presence of syphilis in the average pregnant woman is by means of the routine use of the blood Wassermann, and therefore it is routine that every pregnant woman in the antepartum clinic is serologically examined for syphilis on admission and, if negative, the test is repeated in the fifth month in an effort to eradicate congenital syphilis by the treatment of the infected woman. Adequate therapy of the syphilitic mother during pregnancy is instituted. Authorities consider congenital syphilis as nearly a preventable disease as smallpox. Among the cases in this review, there was 1 woman attending the antepartum clinic in addition to the antisyphilitic clinic. Treatment ran concurrently on the same morning. Moore[5] states that if she is treated continuously throughout the duration of her pregnancy, nearly absolute safety for the child may be obtained.

TABLE 1.—*Distribution of Patients According to the Serologic Reports*

REACTION	NUMBER OF WASSERMANN REACTION	NUMBER OF KAHN TEST	NUMBER OF SPINAL FLUID EXAMS.
Negative	24	14	26†
None taken	6	6	27
Positive +	3	2	
Positive ++	2	9	1
Positive +++	5	9	
Positive ++++	17	17	4
Unsatisfactory	1*	1*	
Total	58	58	58

* Repeated test resulted in 1 negative Wassermann reaction and 1 ± Kahn test.

† 4 repeated tests resulted in 4 negative reactions.

Syphilis and its treatment is not an isolated problem of medicine. The patient with syphilis may have as many other medical problems as the average nonsyphilitic patient. The clinician in the general medical clinic should be cognizant of this fact at all times. In the course of the examination and treatment of the patient in the medical clinic he should not be referred to the venereal disease clinic and lost track of when his serologic report is returned as positive, but he should be treated for other conditions as well as for syphilis. At the time of the initial examination it is frequently found that syphilis and medical diseases of a nonsyphilitic nature exist concurrently. When the diagnosis is some other disease, a very strong Wassermann or Kahn test indicates concomitant latent syphilis as a complication, and the treatment of the latter will very possibly influence the former favorably.[1] Syphilis and its therapy cannot be treated as an isolated medical problem. The success of the treatment of the one is dependent upon the treatment of the other, concurrently.

The following list shows how varied are the medical problems existing concurrently with the positive serologic findings of the patients reviewed in this study: menopause, uterine fibroids, hypertension, chronic cholecystitis, renal failure, rheumatic fever, pregnancy, aortic insufficiency with decompensation, anemia, peripheral neuritis, general paresis, chronic pancreatitis, pulmonary tuberculosis, spastic constipation, peptic ulcer, malnutrition, cardiac disease, multiple myeloma, arteriosclerosis, diabetes mellitus, carcinoma of the stomach, lymphosarcoma, chronic sinusitis, dental caries, thyroid adenoma, hypopituitary disease, occupational pharyngitis and brain tumor, in addition to other diseases of syphilitic etiology.

Moore[5] says the association of diabetes mellitus and syphilis is frequent, but Joslin does not mention a case of proved syphilitic diabetes. Knowledge of the patient's physical condition at the beginning of antisyphilitic treatment, especially in connection with the nervous system and the cardiovascular apparatus, aids the physician in interpreting any physical abnormalities which may develop in later years. It is important to keep a close check on the patient's general physical condition during the series of prolonged antisyphilitic therapy. The presence of tuberculosis, hypertension, hypertensive cardiorenal disease and generalized arteriosclerosis when found in the general medical clinic record may restrict the intensity of antisyphilitic treatment. The venereal disease specialist needs a complete medical picture of his patient before therapy is instituted. The determination of the "cure" of such a patient depends upon prolonged observation with periodic physical reëxamination.

It has been estimated that more than half of the persons recently infected with venereal disease do not seek competent medical attention during the early and infectious stages of their illness. Some of this is due to the lack of financial ability to carry the cost of the prolonged treatment and some is due to the failure upon the part of the patient in presenting himself to a competent medical source for therapy.

In the venereal disease clinic of this hospital the patient's financial ability to cover the cost of his treatment has been determined previously by the Health Security Administration from which he received his clinic-admitting "pass." Free governmental antisyphilitic medication is available whenever indicated. A large percentage of the patients with syphilis can pay no part of the cost of the treatment, and the remainder can pay only a small part of the cost of the therapy. The discontinuance of treatment prematurely for financial reasons has not been a problem here.

The aim of treatment is the complete eradication of syphilitic infection and the "cure" of the patient. Venereal disease control needs the adequate follow-up service of a trained medical social worker in carrying out the important aim of holding the infectious syphilitic patient to treatment beyond the point of disappearance of symptoms and of restoration of health and working capacity. The clinic has constantly urged the employment of a full-time trained medical social worker. Without one, the clinic cannot function to its fullest extent. About 59 per cent of the cases were individuals who were married and who presented special medicosocial problems for follow-up, needing the services of a trained medical social worker.

SUMMARY

A small teaching venereal disease clinic is advantageous because it affords ample opportunity for individualized instruction in the technic of therapy. The instructor has a closer relationship with the interns and senior medical students, and in this way teaching is on an individual basis. The patient-doctor relationship is brought into closer harmony, and this results in case-holding. This is important since the aim of treatment is the eradication of the infection and the "cure" of the patient. Treatment may be prolonged and the patient may become uncertain as to his prognosis, but in a small clinic these problems are soon recognized by the doctor in charge, and by this close doctor-patient relationship they are alleviated.

Syphilis, and its treatment, is a medical problem. The venereal disease clinic functioning in a polyclinic of the hospital is advantageous because it affords the specialist in the venereal disease clinic an ample opportunity of having the benefit of a complete general physical examination of his patient before special therapy is instituted by him. Frequently the patient with syphilis has as many other medical problems as the average patient not attending this special clinic. When other diseases occur, treatment is administered concurrently. The patient is not singled out as attending a venereal disease clinic. The mother with a syphilitic infection, who is also pregnant, is afforded treatment on the same morning that she attends the antepartum clinic, and this service has its advantages for case-holding. The senior medical students and the interns are thus able to follow, concurrently, the various medical problems which the patient may present. The reëxamination of the patient in the general medical clinic after prolonged antisyphilitic therapy and before the determination of the "cure" of the patient is of definite advantage. In a venereal disease clinic of a polyclinic hospital this is the procedure which is of value

(*Continued on page 248*)

MULTIPLE SPONDYLOLISTHESIS

Report of a Case

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THIS unusual case was first seen at the Station Hospital, Keesler Field, Mississippi, on September 18, 1942. The patient was seen in the Orthopedic Clinic because of persistent low back pain for a period of 12 years. At times the pain became so severe that the patient, even before induction, was unable to walk or work. After induction the patient was able to do only 2 days of drill before the pain became so severe he had to stop drilling. On admission the physical examination showed loss of the lumbar lordosis and limitation of motion on hyperextension of the spine.

The interesting part of the case was the roentgenographic examination which showed lack of fusion of the pedicles bilaterally of the fourth and fifth lumbar vertebrae (fig. 1). The film shows apparent forward displacement of the fourth lumbar on the fifth lumbar vertebra, as well as forward slipping of the fifth lumbar verebra on the sacrum.

This lack of fusion of the pedicles was demonstrated at the time the spinal fusion operation was performed. The soldier has made an uneventful recovery since operation, at which time a Hibbs-Albee lumbosacral fusion was done.

The case is presented for the unusual deformity. We have never before seen 2 vertebrae involved in cases of spondylolisthesis.

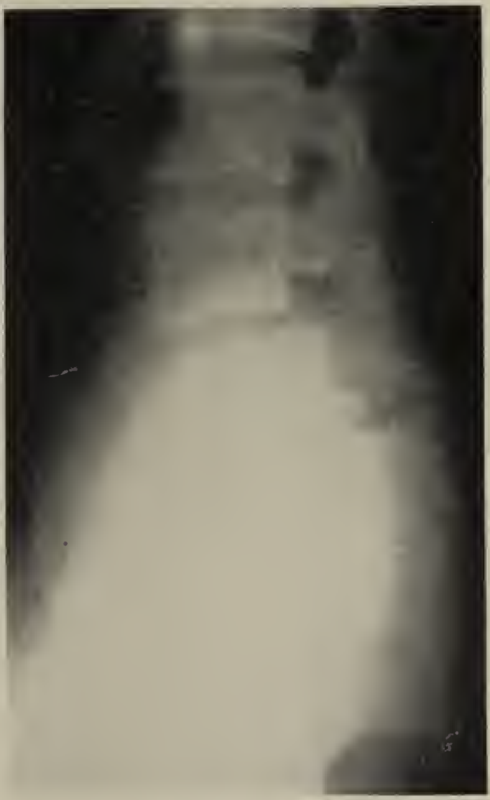

FIG. 1. Multiple spondylolisthesis.

President's Page

ON BEING PRESIDENT

Before I became President of the Medical Society, I frequently heard the comment made by my colleagues: "I wouldn't take the presidency of the Society. Too much politics, too many headaches, and too much work!" Perhaps I have made these remarks myself, although I do not recall having done so.

The purpose of my final message is to tell you how wrong in my estimation this view is. I can honestly say that to me being President has not only been an enjoyable experience but a very profitable one. To be perfectly frank, I relinquish the duties of my office with regret because on the whole they have been most pleasant. You may be interested in knowing that I am not the only one to feel that way about it. My predecessors have admitted a similar feeling.

The reason is not alone the honor of being the head of a large organization such as ours, but the opportunity to gain an insight into the problems which affect the lives of all physicians. To guide the destinies of the Medical Society is a task no man can take lightly for it provides him the opportunity of being of the greatest possible service to his colleagues.

I wish every member could become President. Since this is not in the realm of possibility, I sincerely hope that greater numbers will take an interest in the Society and its program and that they will give it the benefit of their opinions and suggestions.

Recently I sent a letter to our members requesting an expression of their views on the present medical situation and its implications for the future, also the manner in which the Society and the American Medical Association are meeting problems of the day. There have been only a few returns to date and I sincerely hope that many more of our members will reply to my communication so that when I relinquish my duties, I will be able to convey to the incoming officers a cross section of opinion on what the Society should do in the coming year.

In closing I wish to assure you of my faith in the future of our medical organization. I am sure that whatever happens in the field of medicine, its role will be an important one.

Editorials

VITAMINS AND VACCINES FOR THE PREVENTION OF COLDS

The common cold remains one of our important unsolved problems from the point of view of prevention and treatment. It is generally agreed that there is no specific treatment but that symptomatic and supportive measures and isolation of the patient are desirable for obvious reasons. Apparently there is much less agreement among the members of the medical profession and the laity as to the possibility of preventing colds. Indeed, vitamins and vaccines retain an undeserved but tremendous popularity for this purpose.

It is known that various vitamin deficiencies diminish man's resistance to infections. But there is no adequate evidence that the addition of any of the vitamins to an average diet causes increased resistance to upper respiratory infections. Attention to a study by Cowan, Diehl and Baker[1] is of considerable interest in regard to this question of the use of vitamins for the prevention of colds. These authors report that the administration of large doses of vitamin C alone or large doses of vitamins A, B_1, B_2, C and D in combination has no important effect on the number or severity of infections of the upper respiratory tract in young adults who presumably are taking an average diet. It is true that in their study fewer colds were experienced by the persons taking the vitamins than during the preceding "cold season," but an equally beneficial effect was obtained in a control group to whom placebos were administered. As a matter of fact, Dr. H. S. Diehl in his discussion of the subject mentions that certain results reported by many persons who received placebos would serve as splendid testimonials for anything for the prevention of colds.

Careful evaluations of the use of vaccines for the prevention of colds have also appeared in the literature. However, judging from the fact that vaccines are still widely used for this purpose by many reputable physicians, these reports have not been heeded. In carefully controlled experiments two groups of authors[2,3] have demonstrated that the oral administration of a heat-killed vaccine containing several species of potentially pathogenic bacteria of the upper respiratory tract appeared to have no influence on the incidence or severity or incidence of complications of the common cold. The administration of polyvalent vaccines by injection showed a similar significant inefficacy.[2,4]

The importance of these reports should be obvious and deserves wide publicity. In these times of critical shortage of all things waste of any kind is to be deplored. The amount of time, money and material that could be saved by discouraging the use of vaccines and vitamins for the prevention of colds is incalculable.

H. H. H.

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THE DOCTOR AND CIVILIAN MORALE

The question is often asked, are neuroses and other mental difficulties on the increase as a result of the war? A dogmatic answer cannot be given, perhaps, but certain pertinent comments may be made.

It is a truism that war is a time of stress. Unusual forces are at work; various fears are engendered—fear for the safety of loved ones in service, fears for one's own safety, fear of economic disaster, and so on; the separation of families is threatened or accomplished; anxiety and prolonged hours of work promote fatigue; increased duties interfere with recreation. That these stresses may in the predisposed accelerate a breakdown is not strange.

On the other hand, destructive though war primarily may be, there are constructive features—increased devotion to the cause of country, the sharing of duties and anxieties with others, the increased feeling of solidarity, for example.

The resilience of the adjustive mechanism of the human being is often underestimated. Just as man can accommodate himself to extremes of temperature, of humidity, of atmospheric pressure, so he can adjust to many severe stresses at the psychologic level. The experience in England has shown that even at the height of the "blitz" the incidence of breakdown was substantially less than was expected, and then was more noticeable in those who were already on the "ragged edge" of maladjustment, such as the elderly and the mentally defective.

When the anxieties of the group are well controlled, when a feeling of solidarity, of a common purpose, exists, we have what is generally termed good morale. What can the doctor do as his share in promoting this highly desirable state? First of all, by his example of quiet and calm reassurance in his ministrations he does much to promote a like feeling in his patients and in those others with whom he comes in contact daily. By lending his support to community activities he promotes a feeling of unity, of solidarity in the group—a feeling which needs fostering in an area where all too few have "roots" in the area, but where instead many look on themselves as temporary expatriates from another section of the country. To his patients and friends he can counsel and urge the avoidance of fatigue, a realization that the job that each is doing is an important war job, that the humblest cog in a machine is essential. He can urge, too, healthful and simple recreation as a sine qua non of the maintenance of working efficiency.

Morale is essential to victory. Its maintenance and development are jobs for each one of us. The doctor has traditionally been the mentor, guide and friend, the man whose wise counsel is sought by the community in sickness and in health. In keeping up the mental health of the community he has an added chance to do his bit toward bringing about an early victory.

W. O.

ABUSE OF LOCAL SULFONAMIDE THERAPY—A WARNING

There is an increasing tendency on the part of many physicians to use local sulfonamide therapy indiscriminately on all diseases of the skin. The result is that dermatologists are seeing an ever-increasing number of severe sensitization eczemas from this cause.

Several undesirable results follow. Aside from the discomfort and loss of time at work suffered by the patient, he has become sensitized to this group of drugs, so that when a really serious need for the use of sulfonamides internally arises, such as the treatment of pneumonia or erysipelas, the drug may cause severe reactions which otherwise would not occur.

There are several legitimate uses of local sulfonamide therapy on the skin, chiefly the treatment of impetigo, pyodermas, and chancroid. Except for the last named, there may be some question as to the advisability of using this therapy because of the relatively high incidence of sensitization, with the possible end results mentioned above. However, this risk is justifiable in such cases. It should be remembered even here that results will be prompt if they are obtained at all, and if there is not marked improvement in two or three days, the drug may as well be discontinued.

There is, however, no excuse for the use of this therapy in such diseases as acne, psoriasis, and dermatophytosis, where it is useless, and it is inexcusable to use the drug in cases of eczema, which are almost invariably aggravated by the treatment.

If the physician is not capable of making a correct diagnosis, it will be much safer to stick to the use of calamine lotion in all skin diseases. At least, that will do the patient no harm.

FRANK J. EICHENLAUB, M.D.

MEDICAL POLITICS

In his column, "The Federal Diary," in a recent issue of the *Washington Post*, Jerry Kluttz related the following story as originating in England: "A doctor, an architect and a civil servant were arguing as to whose profession was the oldest. The doctor claimed that a member of his profession must have been present at Adam's major operation. The architect topped that one when he pointed out that the world was created out of chaos and where there is a creation there must be an architect. 'But that's where I come in,' cried the civil servant, 'to cause chaos there must be a civil servant.'" And he declared himself the winner. But who created the civil servant? The politician—so I believe the honors will have to be conceded to him.

This little story depicts in a humorous way the disrepute which has attached itself to public servants generally and to politicians specifically. And this attitude is unfortunate. Our whole democratic way of life is built on politics, and if that structure has too many weaknesses, the blame must fall on the builders, and particularly on those builders who have been endowed most generously with the abilities of leadership.

Curiously enough, the statesman, who is, after all, the glorified politician, is held in the highest esteem. But he becomes a statesman usually after a successful career in politics, "success" in this sense meaning that he has served his constituents above his own personal interests. In recognition of this service he is recorded in history books, sometimes in his lifetime, more often posthumously, as a statesman.

The same situation holds true in medicine. Every physician would like to be remembered at the end of his career as a medical statesman, but how few care to serve their apprenticeship as medical politicians! When someone in a local society takes the time and trouble to sway the vote on an issue by personal influence, he is accused of forsaking his profession and meddling in politics. But we are all influenced in our actions by what others think and say. And if those endowed with the best judgment do not use their personal influence on issues which bear directly or indirectly on the future of their profession, who will be to blame if organized medicine goes down in history as a noble experiment but obsolete? A medical society, like any other professional organization, can gather strength only if its officers, board and committee chairmen have something worthwhile to contribute, and the ability and drive, as well as the imagination, to follow a predetermined course of action or a project through to completion.

Medical societies need politicians. They need men who can rise again after they have seen their efforts or their candidates go down in defeat. They need "hand-shakers," too, doctors who are not too busy to pass the time of day and find out what others of their profession are thinking. And not only what the profession is thinking, but what the patients are thinking, what the people are thinking.

The world is anticipating the postwar era. In the sphere of health, will the doctors continue to lead the way or do they prefer to be led by politicians in other fields more cognizant of the mass struggle for social changes of all kinds? Is the doctor willing to advocate a change in medical practice, as he might change his patient's prescription in private practice, and gamble on the outcome?

It is a moot question whether change itself is an end to be desired, but no change is stagnation. A new system per se is not to be deplored, but one which strangles initiative by multitudinous reports and regulations. Danger to the profession will exist when leadership is exchanged for security. Danger exists now to the extent to which an apathetic majority is willing to let its leadership be taken over by whoever wants it, in the profession or out. Call it medical politics if you will, but unless physicians are willing to be politicians now, in their own local societies, there will be no medical statesmen later. The physician as a force in shaping the postwar world may even become the "forgotten man."

A. L. E.

PERTINENT PARAGRAPHS

May Meetings

As the organization year drew nearer to a close, there were fewer meetings of boards and committees. The Annual Business Meeting was held on May 5. Only matters of a more urgent nature will be taken up from now until new committees are appointed.

The following meetings were held:

May 5	Annual Business Meeting of Society
May 6	Subcommittee on Venereal Diseases Section on Neurology and Psychiatry
May 7	Grievance Committee
May 11	Committee on Medical Economics
May 12	Special Meeting of Society
May 14	Committee on Public Health
May 17	Subcommittee on Scientific Exhibits, Annual Scientific Assembly
May 22	Section on Pathology and Laboratory Medicine
May 24	Grievance Committee Executive Board
May 25	Committee on Arrangements, A.S.A.
May 27	Subcommittee on Finance, A.S.A. Section on Pediatrics

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Golf at Fifty

Doctors and patients who have reached middle years should read Dr. Roger I. Lee's "Health and Fitness at Fifty." This article, originally published in *Hygeia*, is now available in pamphlet form through the American Medical Association. Dr. Lee's commonsense and sometimes humorous views will prove helpful to the man who decides, after a lifetime of inactivity, that he needs exercise. Dr. Lee says:

> "Perhaps the most miserable man is the business man who has stuck to his office until he was 50, and then with a little more leisure and considerable money he is persuaded to take up golf. Some enthusiastic friends get him elected to a golf club. He who has not walked 100 yards consecutively for twenty years puts on new and heavy boots and takes a few lessons. He is then expected to play eighteen holes of golf. This means, even in a straight line, which he can never achieve, walking five miles up and down hill between desperate and ridiculous attempts to hit an infernal white ball—and he wears these heavy boots! Ordinarily, after a few feeble attempts at the game, he confines his attention to the nineteenth hole.
>
> "Only a few individuals of 50 will take exercise as such. They want an objective. The woman of 48 beginning to be 'hippy' will punish herself severely with a dull program of monotonous exercise if she is convinced thereby that she can 'slim' those hips. But the popularity of golf demonstrates that men and women of 50 like the pleasure objective in their exercise. Golf is a subtle game. Primarily, it is a device for getting a half hour's exercise in two hours and a half. Actually, it is

intermittent walking in the open air over pleasant, rolling country, punctuated by violent and exasperating use of the arms. But so cunning is the game that an occasional good stroke, the rare par hole and rarer birdie, the chance defeat of an opponent—especially if he is young, athletic and handsome and most especially if he is your business associate or your filial relative—lures you on to more lessons, more clubs, more games, more mild exercise and even to vacation. But golf is not hard exercise even if it is long. Golf is not a reducing exercise, as a glimpse of the golfers against the skyline will disclose!"

Although their ardor may be somewhat dampened by restrictions on pleasure driving, Dr. Lee's provocative description should stir the "boys" to action. They need the relaxation and exercise golf affords.

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What Physicians Fear

It is unfortunate that the attitude of the average doctor toward social problems is so frequently misunderstood. He is looked upon by many as an unrealistic reactionary who in spite of "hell and high water" wants things to remain as they are. The truth is that most physicians are much concerned lest the present high standards of medical practice be lowered. Like other citizens, they look with trepidation on change because of its unpredictable effect on their existence. Generally speaking, they are skeptical of Government subsidy or control of medicine. What assurance, they ask, can be given them that even the most satisfactory program will not be tampered with by politicians? It will be a great temptation, to public officials seeking votes, for there is nothing which has a greater appeal to the public than "free" medical service. Here, then, is the dilemma of the medical profession. If doctors oppose any system which promises to provide medical care to greater numbers of the people at less cost, regardless of its soundness from a medical viewpoint, they are charged with selfishness. On the other hand, if support is given to a program which will eventually make doctors subject to the whims of politicians, thereby adversely affecting the quality of service rendered, they will inevitably be open to serious criticism.

A few weeks ago the dean of a Midwestern medical school discussed the future of medical practice with officers of the Medical Society of the District of Columbia. In the course of the conversation it was agreed that as a result of the war great social changes were inevitable and that medicine must face this fact. It was stated that the collaboration of the medical profession and the Government was essential. The dean, however, had his own ideas about this matter. He said that doctors in foreign countries had learned from bitter experience that promises were not kept once the medical profession became involved in politics.

Looking at this subject from a slightly different point of view, the comments of Dr. Paul P. Swett, in the May 1943 issue of the *Connecticut State Medical Journal*, are of interest. Dr. Swett, writing under the title, "Bureaucracy and Clinical Medicine," says:

> "American clinicians naturally view with considerable concern the possibility that the practice of medicine may ultimately come wholly under the administrative control of some agency or bureau of government. The majority of these physicians do not seem to be aware of the imminence of this eventuality. Careful scrutiny should convince even the most obtuse amongst us that bureaucratic control of medical services is slowly and inexorably gaining momentum.
>
> "The process seems to be following the same kind of a course as that which the corporations have previously taken. According to Peter Drucker, in an article entitled 'The Future of the Corporation' in *Harper's Monthly Magazine* for November 1942, 'the corporation managers who, a few years ago, seemed firmly entrenched, now seem likely to lose permanently all political and social power.' He goes on to point out that 'however efficient bureaucratic government control may be, freedom cannot be maintained under it. A central omnipotent bureaucracy must soon become a tyranny.' It is reasonable to suggest that what has already occurred in the field of business will also occur in the field of medicine.

"This then is the shape of the grim spectre which, however dim its outlines, looms before the troubled eyes of thoughtful clinicians. The loss of precious freedom and its replacement by tyranny are what the future holds for medicine unless the present trends are reversed. The slow steady increase in the assumption by state and federal agencies of medical functions has already produced a number of public administrative agencies. These agencies, created in the name of efficiency in response to public need, require neither undue aggressiveness nor delusions of grandeur to stimulate them to extend their original powers. The obligation to manage effectively what has been given them to administer is all the reason required to lead them indirectly into a tyranny which they had no intention of becoming and which they would be the first to decry.

"The bureaucratic control of medicine might be prevented if physicians would promptly use their present freedom to assume the responsibility for providing a self-governing organization of medical service appropriately geared to the needs of the public. . ."

These would seem to be conclusive arguments against the medical profession giving support to health legislation providing for the expansion of Government health services. But, as Dr. Swett says, this expansion is already in sight. What his comments make clear is that the medical profession must without further delay develop and make effective a program embodying the principles in which it believes.

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Drew Pearson on the A.M.A.

It is funny how people get fixed ideas and how difficult it is to dislodge them, even though they may be erroneous. Newspaper columnists are no exception. Drew Pearson, for example, seems to be under the impression that the American Medical Association can always be counted on to oppose any change. Well, no one can deny that it has been conservative, but as can be readily shown, it has also sponsored a number of progressive measures which are generally overlooked by commentators.

In his column, "The Washington Merry-Go-Round," dated April 20, 1943, Mr. Pearson writes:

"Current attacks on Farm Security Administration threaten to undo one of the most effective programs of the New Deal. If Congress succeeds in stripping FSA of funds, there will be an end of the medical care program, which has brought 'group health' to 117,000 families in the lower income classes of the country.

"At first, this program was bucked by the American Medical Association which worried about 'socialized medicine.' But after six years a recent report of the conservative medical association views the experiment with favor.

"Reason for the change is that State medical associations, in the proportion of about 4 to 1, declared that the group health program did not destroy the independence of doctors, but actually gave them more business.

"The Farm Security medical plan is a 'prepayment plan,' under which families in farm areas pay a fixed fee for a full year's medical care for the entire family, regardless of what ailments may develop. The fee ranges from $15 in the poor areas, upward to $40.

"But the farm bloc, now running wild in Congress, probably will sweep aside this aid to rural communities, though it now operates in 1,140 counties."

If the American Medical Association has opposed the FSA medical plan, it has not come to our attention. Furthermore, if the A.M.A. changed its views because state medical societies found the program did not adversely affect the income of doctors, it is news to us. Pearson apparently was drawing his own conclusions. The danger of relying upon fixed ideas is that one may be wrong.

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Health Insurance in Canada

Writing in a recent issue of the *Ontario Medical Association Bulletin* on "Health Insurance—How Soon?," Dr. T. C. Routley, General Secretary of the Canadian Medical Association, says:

"Health insurance is around the corner—in people's minds. They want it. Inevitably, it will come. We as a medical profession, more perhaps than any other group, are vitally concerned, and we must do our best to see to it that the legislation, when it is placed on the statute books, guarantees progressively better medical services to the people and conditions of work and remuneration which are eminently satisfactory to those who provide the service."

Addressing himself to the doctors, he says:

"The medical profession of Canada may rest assured that its interests will not be lost sight of by those who represent the profession before the [Health Insurance] Committee. The proposed legislation may, and likely will, change the practice of medicine for generations to come. It is axiomatic to say that, if the Canadian public is to receive adequate medical care, using that term in its broadest sense, then those providing that care must receive adequate pay and recognition for their services."

So after several years of planning, it appears that compulsory health insurance will become a reality in Canada. The Canadian Medical Association has been actively interested throughout the years in which health insurance has been under consideration. A tribute was recently paid to the Association by the Honorable Ian Mackenzie, Minister of Pensions and National Health and Chairman of the Cabinet Committee on Reconstruction. He said:

"Perhaps the culminating achievement of the [Health Insurance] Committee, aside from the draft proposal which constitutes its report, was the unprecedented assembling between annual conventions for the first time in 75 years of the General Council of the Canadian Medical Association in Ottawa, January last, when this great and influential body formally went on record in favour of the principle of health insurance. That decision was not reached until after members had familiarized themselves quite thoroughly with the general principles of the committee's report. The resolution is not to be interpreted as an endorsement of this or any other specific plan. The Medical Association reserved its right to comment on any particular provisions, but it was nevertheless a great milestone in the path of progress in Canada when the medical profession of Canada, through its General Council, formally pledged itself to the principle of health insurance."

The proposals which are now being studied by the Advisory Committee on Health Insurance of the Department of Pensions and National Health as outlined in the *Ontario Medical Association Bulletin*, are as follows:

1. There shall be an enabling federal act relating to health insurance, public health, the conservation of health and the prevention of disease.

2. There shall be a model provincial act of health insurance which in substance shall be accepted and adopted by any Provincial Government desiring to obtain federal subsidies for health insurance.

The enabling act is brief. It permits the Minister of Pensions and National Health to set up within his department a Health Insurance Branch which shall have the power to carry on negotiations with any province which may be agreeeable to introducing health insurance legislation which guarantees benefits of the standards, under conditions and for the classes of persons as set forth in the enabling act. A province entering into negotiations with the federal authority with respect to health insurance must also guarantee to carry on simultaneously a public health program of a character, scope and extent which will be satisfactory to the federal authority. The federal authority in turn undertakes to provide financial aid to the provinces both for the actual carrying out of health insurance and for public health benefits. The federal authority also has the right to appoint inspectors to visit the provinces to see that the money which has been voted to the provinces is being properly and adequately expended.

The model provincial health insurance act sets forth the following:

The provisions shall be applicable to all persons in the province coming under an economic level to be set by the Province.

Funds shall be provided by the federal and provincial governments, insured persons and employers.

Children under 16 years of age will be included without the payment of premiums.

The financial arrangements suggest that the sum of $26.00 per insured person per year be set up to cover all benefits, including administration.

Administration shall be under a Commission, the chairman of which shall be a medical practitioner who has had at least ten years' experience in practice.

The benefits shall include the following:

Medical, surgical, and obstetrical benefits
Dental benefit
Pharmaceutical benefit
Hospital benefit
Nursing benefit

There shall be free choice of doctors by patient, and vice versa.

There shall be no exclusions; i.e., the act will cover all persons within the economic level, including indigents; and it shall also provide all necessary services, including general practitioners, specialists and consultants.

The insured shall be obliged to name a family doctor or general practitioner.

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ANNUAL BUSINESS MEETING

Those in attendance at the Annual Business Meeting of the Medical Society of the District of Columbia held on May 5, 1943 were well rewarded. Not only was the business transacted at the meeting of special interest, but an unusually able speaker was presented. Following the business session, the Honorable Harold H. Burton, United States Senator from Ohio, addressed the Society on "The Roads to Lasting Peace." Senator Burton is not only one of the country's ablest statesmen but a very effective speaker.

Prior to this meeting, copies of the Reports of Officers and Boards and a Review of Committee Activities for 1942–1943 had been mailed to the Society's membership, giving them an opportunity to review the material in them before it was acted upon. This innovation was apparently well received by the membership.

Annual Report of the Chairman of the Executive Board

In accordance with the requirements of the Society's Constitution and By-laws, the Chairman submitted a report of the activities of the Executive Board for the past year. Those desirous of reading this report can obtain a copy from the Society's office. The report concluded with the statement:

"So much has been said about changes in medical practice that further mention of this subject will perhaps make little impression. However, your Chairman wishes to close this report on a note of caution. Tremendous efforts are being made in many high places to extend the benefits of the Social Security Act to include medical care. It behooves our physicians to keep themselves posted on developments. This can be done by reading the Medical Annals and the *Journal of the American Medical Association*, as well as newspaper articles on this subject. At the same time, your officers are studying the situation and will submit their views and recommendations to you at the proper time."

Report of the Secretary

The Secretary reported the status of the Society's membership. The following figures were presented:

	1939	1940	1941	1942	1943
Active	820	848	843	856	879*
Life	55	51	60	60	64
Associate ..	164	190	208	211	212*
Honorary..	7	7	7	7	9
Total...	1,046	1,096	1,118	1,134	1,164

*Up to May 1, 1943, 171 Active and 37 Associate Members had entered the military services.

The Secretary reported that he had participated in 147 meetings and conferences during the year. In addition, he had attended numerous functions sponsored by medical and other organizations and held many conferences with the press, public officials and lay officials, of which there is no record.

A large part of the Secretary's time was devoted to various activities relating to the war. He is Secretary of the Society's Committee on War Participation and serves in a similar capacity to the local Procurement and Assignment Committee. He is also a member of the Medical Advisory Committee and Special Assistant to the Chief of Emergency Medical Service for Civilian Defense in the District of Columbia, and serves on the Medical Advisory Council to National Headquarters of the Selective Service System. In addition to the duties incidental to these positions, the Secretary represented the Society in conferences held with public officials in regard to rationing of gasoline, fuel oil and foods as it directly affected the medical profession.

Another wartime activity of the Secretary was the writing of "news letters" to members of the Society in the military services. As pointed out in the report, it is very important that physicians from Washington in the armed forces know that they have the interest and wholehearted support of physicians on the home front. The first "news letter" was sent on January 19. Because of the prompt and enthusiastic response, the letters are being continued.

Assistance was given by the Secretary to the Program Committee and the Committee on Postgraduate Education. The former presented excellent programs throughout the year. A Postgraduate Course on Acute Respiratory Diseases was presented in March.

As in previous years, the Secretary addressed the senior medical students of Georgetown University on "Physicians' Records."

The 14th ANNUAL SCIENTIFIC ASSEMBLY held at the Mayflower Hotel on September 29, 30 and October 1, 1942 was the most successful ASSEMBLY held by the Society. One thousand, seven hundred and sixty registered, of which 1,074 were physicians. The Secretary coöperated very closely with Dr. Fred R. Sanderson and his Committee on Arrangements. As usual, he was in charge of the Technical Exhibit.

The past year was a most successful one for MEDICAL BUREAU. The total number of subscribers increased from 182 to 226. At the present time there are 68 subscribers for the Telephone Secretarial Service, 152 for Alternate Listing Service, and six tie lines. These tie lines connect the BUREAU with Doctors, Emergency, Garfield, Providence and Sibley hospitals and the HEALTH SECURITY ADMINISTRATION. The Secretary pointed out that the BUREAU has still greater possibilities and it is fully expected that they will be realized.

As Managing Editor of the MEDICAL ANNALS, the Secretary writes non-scientific material such as editorials on general topics. In addition he handles all details in connection with its publication. The ANNALS showed a financial loss in 1942. However, the budget has been so revised that it should be financially self-sustaining.

The Secretary reported an increase in the number of subscribers to GROUP HOSPITALIZATION, INC. from 370 to 378. Responsibility for the recording of payments and remittance of them to GROUP HOSPITALIZATION falls to the Secretary and his staff.

During the past year the Secretary has served as a member of the Nursing Council for War Service. He was recently elected a member of the Board of Directors of the Council of Social Agencies of the District of Columbia and Vicinity.

The Society has long sought special parking privileges for physicians. These were finally obtained following a conference held by Mr. W. A. Van Duzer, Director of Vehicles and Traffic, Inspector Arthur E. Miller of the Metropolitan Police, and the Secretary.

News releases were prepared throughout the year by the Secretary for the Committee on Public Relations.

The Secretary expressed his appreciation to officers of the Society, members, and the office personnel.

DR. NICHOLS RECIPIENT OF AWARD

The Annual Certificate of Award for Meritorious Service to the Medical Society of the District of Columbia was presented this year to Dr. John Benjamin Nichols. Dr. Nichols was President of the Society in 1912. For more than forty years he has rendered outstanding service to the Society. At present he is Chairman of the Committee on History. The presentation was made by Dr. William J. Mallory, Chairman of the Executive Board.

ELECTION OF OFFICERS

The election procedure inaugurated last year was followed again this year. It is interesting to note that 359 ballots were cast as compared with 316 in 1942 and 336 in 1941. Drs. William Thornwall Davis and James N. Greear, Jr. were candidates for President-elect and Drs. Coursen B. Conklin and Henry C. Macatee for Delegate to the American Medical Association. As a result of the balloting the following officers were elected for the year 1943–1944:

President-elect	James N. Greear, Jr.
First Vice President	Custis Lee Hall
Second Vice President	Carolyn H. S. Pincock
Member of Executive Board	A. Magruder MacDonald
Member of the Board of Censors	L. Lee Cockerille
Delegate to the American Medical Association	Coursen B. Conklin
Alternate Delegate to the American Medical Association	Arthur C. Christie

Dr. Fred R. Sanderson, who was elected President-elect in 1942, will take office as President of the Society on July 1, 1943.

REPORT OF THE BOARD OF CENSORS

Except for the Executive Board, the Board of Censors is the only body responsible directly to the Society. All other committees, boards and sections must submit their reports to the Executive Board to be transmitted to the Society. The manner in which it discharges its duties should therefore be of special interest to the Society's membership.

The procedure adopted a few years ago by the

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War Section

MILITARY AND CIVILIAN MEDICAL SERVICES NEED PHYSICIANS

The statements which follow set forth the needs of the various branches of our Government for medical personnel. The urgency of these needs is emphasized in a letter received by the Editor from Dr. Frank H. Lahey, Chairman of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians. He writes:

> "The failure of some areas in the country to provide their quota of physicians for the armed forces reflects unfortunately on all of American medicine. Is American medicine incapable of making the sacrifices required of it without compulsion?
>
> "We must face one inescapable fact. Our fighting men, and those who must remain behind, must and will have medical care. It will be obtained one way or another. The choice of methods is still in our hands. The medical profession of this country never has failed the nation; it must not do so now!"

The District of Columbia met its 1942 quota. It will not fail in its obligations in 1943. A survey of physicians in private practice has just been completed. Analysis of the data obtained should definitely establish the number of effective physicians available to the civilian population and those who can be released for military service.

CHAIRMAN OF THE DIRECTING BOARD, PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS, DENTISTS AND VETERINARIANS:

Figures are now complete on the 1942 quotas for supplying physicians of the various states. Forty states have exceeded the 100 per cent figure of their quotas. Five states were above 90 per cent of their quotas. Four states, New York, Connecticut, Massachusetts and Nevada, were below 90 per cent of their quotas.

Nevada is the lowest state, but has a total quota of but 35 doctors. It has provided 23 and deserves special consideration because its population is thinly scattered over wide areas.

This statement would not imply any reflection on the patriotism of those members of the medical profession who have been marked available by the Procurement and Assignment Service in these three states and who have not sought a commission. I would only present the facts and let each one draw from these facts whatever deductions he individually chooses.

Certain unavoidable considerations must be faced in these figures. Four states failed to provide 90 per cent of their 1942 quotas of doctors for the services. Three of these states, New York, Connecticut and Massachusetts, are Eastern Seaboard states and among the most populous ones in the Union. These populous states have large cities in them which now have more doctors per thousand persons than most other parts of the country. Largely because those doctors marked available by the Procurement and Assignment Service have not sought commissions these states are below their quotas.

Unless more of the doctors found available for military service by the Procurement and Assignment Service in these cities apply for a commission in the armed forces with reasonable promptness, still more doctors must come from rural communities. This will greatly complicate the problem, for these communities are already none too well supplied with doctors. Such inequalities in medical service as now exist are in a considerable measure the result of the conditions herein stated and cause occasional problems of rural medical care which become practically insurmountable for the Procurement and Assignment Service with its present limited authority. With all these facts in mind, with the responsibility of medicine to the country and to itself such as it is, the quota figures particularly for New York, Connecticut and Massachusetts should be brought up to par by an intensive effort of the state medical societies through their executive bodies, preferably by an organized state medical society campaign.

The provision of doctors for the armed forces is not only the special obligation of medicine but a responsibility which it acknowledges and accepts as its part in the war effort. Each state that has not met its 1942 quota will be kept informed of its position in relation to its quota and its position in relation to other states. Otherwise, a state is denied the pardonable pride of satisfaction in meeting its quota or pampered against facing a distasteful position in relation to other states.

SURGEON GENERAL OF THE UNITED STATES ARMY:

The Army is increasing in size; more medical officers are required. New units are being formed and many new general hospitals are under construction at many points in the United States. Some basic training must be given to medical officers before they are assigned to purely medico-military duties; for this reason, they are needed one or two months prior to actual assignment. For the protection of the health of the civilian population, the quotas for physicians must be fairly distributed throughout the country. Certain states are far behind; they will, it is hoped, do everything possible to furnish their quotas at once.

SURGEON GENERAL OF THE UNITED STATES NAVY:

In order to plan intelligently I have reviewed the personnel situation in the Medical Department of the Navy. There is a deficit of approximately nine hundred medical officers for the next six months, based on minimal requirements. The Bureau of Medicine and Surgery calls medical officers to active duty when billets are available, does not build up too large a Reserve at any time. Consequently, procurement must go on in an orderly fashion, if we are to meet the demands that will be placed upon us as the offensive fighting develops. We cannot afford to have the deficit increase beyond its present level; if it does, we will not be able to give first-class medical service to our wounded.

The Medical Department of the Navy is charged with maintaining the health of all the personnel of the Navy and the Marine Corps; in addition it must care for the dependents of the officers and men. We look to the medical profession of our Nation to come forward with the available doctors that can be spared from civil life to aid in our military necessity. In the main, the profession has responded nobly. There are some localities where this is not so. In those localities the medical profession should cause the pressure of public opinion to bear on all eligible doctors and thereby bring to their attention the seriousness of failing to do their patriotic duty.

The medical profession is faced with a challenge of furnishing medical service to the Armed Forces and to the civil population during the active state of war and in the postwar period, which we hope is not too far distant. Should the profession fail in either regard, many forces may develop that will destroy the practice of medicine as we know it. This would be disastrous and it is something that we cannot afford to allow to come about. In all seriousness, the doctors of medicine in the United States should take stock carefully of their own immediate situations and should give every assistance in planning to see that medicine plays its responsible part in this and coming years.

SURGEON GENERAL OF THE UNITED STATES PUBLIC HEALTH SERVICE:

During the next twelve months, the Public Health Service will require approximately 600 medical officers for full-time active duty in the reserve commissioned corps. These physicians will be recruited on an average of 50 a month—25 for service in the U. S. Coast Guard, and 25 for general service.

In addition to the medical officers assigned to the Coast Guard, physicians are needed for duty in the Marine Hospitals and the medical program of the War Shipping Administration, as well as for detail to general public health work in state and local health departments, and for such specialized war programs of the Public Health Service as tuberculosis control, venereal disease control, industrial hygiene, and community medical services.

The Service also expects this year to commission some 5,000 physicians in the inactive reserve. These doctors will be available for active duty in the event of acute emergency in their own or nearby communities. They will not be called for active duty unless an acute emergency exists, and will be retained only for the duration of such an emergency. This recruitment of inactive officers is undertaken as a part of the coöperative program of the Public Health Service and the Office of Civilian Defense.

The needs of state and local health departments for physicians have increased greatly during the past year. In January 1942 it was estimated that state and local health departments would need 600 physicians. As of January 1943 the exact needs have not been determined, but the Public Health Service has, at the present time, requests from the states for 185 medical officers to be assigned to duty in war areas alone.

According to reports from State Procurement and Assignment Chairmen, as of March 23, 1943, 286 additional doctors for civilian practice are needed in 176 counties located in 38 states. Another 22 counties in the same states report a shortage of physicians but do not specify the numbers needed. In the remaining 10 states, no needs were reported. These 198 counties reporting immediate needs represent only 7 per cent of the 2,654 counties in the 38 states, and only 6 per cent of all counties in the country. Nevertheless, it is apparent that civilian communities are feeling the pinch of the physician shortage increasingly, since experience has shown that local needs become acute before they are expressed in formal reports. In the joint studies made in 42 areas by the Public Health Service and the Procurement and Assignment Service, it has been determined that 59 physicians and 5 dentists, or 64 medical and dental personnel, are needed in these areas, an average of 1.5 per study. The Public Health Service has been requested to supply 13 of these physicians and dentists, or 23 per cent of the determined need.

On the basis of these 42 studies, it is estimated that 500 physicians and dentists will be needed in 332 areas to be surveyed in the next coming fourteen months, or by June 1, 1944. It is anticipated that 80 per cent of these, or 400, will be supplied by voluntary relocation through the regular channels of Procurement and Assignment, and that the Public Health Service will be requested to assist in meeting the needs for the remaining 20 per cent, or 100 physicians and dentists. This may be done either through financial assistance to physicians desiring to relocate in areas requiring their services, or through assignment of Public Health Service personnel upon request of the proper authorities.

Although it is impossible to project with accuracy the 1943 needs of civilian communities, we must face the fact that the shortage undoubtedly will increase during and after the filling of the 1943 military quotas; and that the chances of meeting civilian needs as well as replacing physicians who die or withdraw from practice because of disability will correspondingly

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On The Home Front

Officials of the **American Medical Association, the American College of Surgeons and the American College of Physicians** have appropriated $20,000 for the purpose of organizing and presenting **Wartime Graduate Medical Meetings.** The teaching schedule will include ward walks, clinics, practical demonstrations, moving pictures, lectures and conferences.

The committee in charge of the program is composed of representatives of the three organizations, namely, Dr. Edward L. Bortz, Philadelphia, Chairman; Dr. William B. Breed, Boston, Secretary-Treasurer; and Dr. Alfred Blalock, Johns Hopkins Hospital, Baltimore. For organizational purposes the country has been divided into 24 sections, and key committees of three men appointed in each section to carry on the details of the program. To insure worthwhile meetings, a group of qualified authorities have been appointed to serve as a Board of National Consultants in the various special fields.

Dr. James Alexander Lyon has been appointed Chairman of the Regional Committee in Zone no. 5, which comprises Maryland, District of Columbia, Virginia and West Virginia. He will represent the American College of Physicians. The other two members of this committee are **Dr. G. Louis Weller,** representing the American Medical Association, and **Dr. G. Reid Edwards** of Baltimore, representing the American College of Surgeons.

A free supplement to United States Pharmacopoeia XII is available to owners of all copies if they will fill in and mail the post card order which is tipped inside the back cover of the U.S.P. XII. It was not expected that this supplement would be issued until about two and one half years after the appearance of the U.S.P. XII, but changing conditions and wartime demands have necessitated its immediate publication. The supplement, which will be available in about two months, will be sent without further cost to those who mail in their order cards as directed.

Publication of the **Journal of Investigative Dermatology,** official organ of the Society for Investigative Dermatology, has been temporarily suspended owing to war conditions. In all, five volumes have been published. About 100 complete sets and a limited number of copies are still available and may be secured by writing the Williams & Wilkins Company, Mt. Royal and Guilford Avenues, Baltimore.

Mr. Robert F. Bingaman, Supervisor of the Merit System Council of the State of West Virginia, announces unassembled examinations for a number of positions in the West Virginia State Health Department and the West Virginia State Department of Public Assistance. Applications are accepted continuously, but new registers will be established from applicants who file no later than June 26, 1943. Residence in West Virginia has been waived. Mr. Bingaman may be addressed at 212 Atlas Building, Charleston.

The Annual Spring Luncheon of the Woman's Auxiliary to the Medical Society of the District of Columbia was held in the Medical Society's building, May 12. This was the Auxiliary's last meeting of the year. At a short business meeting which preceded the luncheon the following officers were elected for 1943–44:

Mrs. Fred Sanderson, *President;* Mrs. Leon Martel, *First Vice President;* Mrs. Charles McEnerney, *Second Vice President;* Mrs. Chester Brady, *Recording Secretary;* Mrs. Edward J. Cummings, *Corresponding Secretary;* Mrs. Thomas Crisp, *Treasurer.*

The George Washington University Medical Society held its annual business meeting, May 15. **Dr. William Earl Clark** gave the Presidential Address on the subject, "Medicine and the Changing World." The following new officers were elected at this meeting:

Dr. Robert H. Harmon, *President-elect;* Dr. Fred A. J. Geier, *First Vice President;* Dr. Elma B. Carr, *Second Vice*

President; Dr. Oscar B. Hunter, *Secretary-Treasurer;* Dr. William Earl Clark, *Counselor for five years.*

Dr. William M. Ballinger took office as President of the Society, June 1.

The Clinico-Pathological Society held its regular meeting, May 4, at the Kennedy-Warren Apartments. Case reports were presented by Drs. Edward B. Broocks, Matthew White Perry and John A. Talbot. Dr. Broocks was host to the Society.

The Board of Directors of Central Dispensary and Emergency Hospital held its annual meeting, April 29. Reëlected to office were Stanley D. Willis, President, Dr. Henry L. Darner, Secretary, and J. G. Capossela, Superintendent. Society members who will serve on the Board of Directors for the coming year are as follows:

Drs. William Earl Clark, Henry L. Darner, H. A. Fowler, James N. Greear, Jr., Harry M. Kaufman, Joseph Kreiselman, Guy W. Leadbetter, William B. Mason, William B. Marbury, James F. Mitchell, Daniel B. Moffett, A. B. Moore, Thomas E. Neill, John W. Warner and John H. Lyons (on leave of absence).

At the annual meeting of the **Board of Directors of the District Social Hygiene Society,** May 11, Dr. H. H. Hazen was reëlected President and Dr. George R. Creswell, Secretary. Among the directors elected for three-year terms were Drs. Edith S. Coale, Lewis C. Ecker, V. L. Ellicott, Robert S. Lamb and Daniel L. Seckinger.

Dr. Walter A. Bloedorn has been appointed a member of the District Red Cross Nurse Recruitment Committee, which will act as the official recruiting agency for Army and Navy nurses. The committee expects to enroll a minimum of 38 nurses per month in the Washington area.

Dr. Winfred Overholser was reëlected Secretary-Treasurer of the American Psychiatric Association at the 99th Annual Meeting held in Detroit, May 10–13.

Dr. Wallace M. Yater has been appointed a member of the Subcommittee on Cardiovascular Diseases of the National Research Council.

Upon recommendation of the Executive Board, **Dr. Henry C. Macatee** and **Theodore Wiprud** were appointed as delegates to the Council of Social Agencies of the District of Columbia and Vicinity to serve during the year 1943–44.

Comdr. Don S. Knowlton, M.C., U.S.N.R., will be in command of a medical field service school which has been established at New River, N. C., for Camp Lejeune. The school will train and instruct officers and enlisted men of the Navy's medical department in medical field service, with special emphasis on duty with the Fleet Marine Force. More than 80 per cent of the teaching staff have seen action with the Marines in the South Pacific war zone.

Lt. Col. Worth B. Daniels, M.C., U.S.A., Chief of Medical Service, Fort Bragg, N. C., read a paper on "Sulfadiazine in the Treatment of Meningococcic Meningitis," May 11, before the 90th Convention of the North Carolina State Medical Society in Raleigh.

Dr. H. E. Hilleboe, Medical Officer in charge of the Tuberculosis Control in the States Relations Division of United States Public Health Service, was elected a director-at-large of the National Tuberculosis Association at the meeting of the Board in St. Louis, May 5. He will serve a two-year term ending in 1945.

Dr. Hilleboe came to Washington in January from St. Paul, Minn., where he was Chief of the Medical Unit of the State Division of Social Welfare and medical coördinator for the State Social Security Department. He also was Assistant Clinical Professor of Preventive Medicine and Public Health at the University of Minnesota School of Medicine, from which he graduated in 1929. In 1935 he received his M.A. in public health from Johns Hopkins University, and in 1939–42 was on loan from the Minnesota Surgeon General's Office to the Governor to develop a medical care program and superintend the state's fifteen tuberculosis sanitariums.

Dr. Fred R. Sanderson addressed the graduating class of Georgetown University School of Nursing, May 16.

Dr. Isadore Rodis discussed the psychiatric effect of war on individual and family life at a meeting of the Council of Social Agencies, May 25.

Dr. Harry F. Dowling addressed the District of Columbia Dental Society, May 11. His subject was "Chemotherapy with the Sulfonamide Drugs."

Dr. Edward H. Gookin has been reëlected President of the Friendship Fire Association.

Dr. Ralph Beachley, Arlington County Health Officer, discussed health conditions at a meeting of the Thomas Nelson Page School Parent-Teacher Association, Arlington, May 11.

Commissioner John Russell Young, Chairman of the 1943 celebration of the President's birthday in the District, announced May 6 that $108,000 had been raised, half of which will be used in the fight against infantile paralysis locally and half sent to the National Foundation for Infantile Paralysis.

BOOK REVIEWS

Burns, Shock, Wound Healing and Vascular Injuries. Military Surgical Manuals V. National Research Council. Pp. 272. Philadelphia: Saunders, 1943.

This manual covers one of the most important phases of medical care during war. The chapter on burns stresses the very important point that the patient's general condition should be treated before local treatment is undertaken. The section on local treatment is devoted chiefly to the use of tannic acid and variations of this method. There is much controversy today as to the method of choice for local treatment. The accepted technics for skin grafting and care of contracture are developed and many good illustrations are included. A large section of the manual is devoted to a brief but thorough discussion of the mechanism, prevention and treatment of shock. The remainder of the book describes wound healing, traumatic wounds, vascular injuries, and diseases of arteries and veins, in an academic manner. This manual is a valuable addition to the library of any physician.

J. W.

Essentials of Gynecology. Willard R. Cooke, M.D., F.A.C.S. Pp. 475, with 197 illustrations. Price, cloth, $6.50. Philadelphia: Lippincott, 1943.

Dr. Cooke has presented his text on gynecology with the individualism and precision of a professor who has had extensive experience both as a clinician and as a teacher. The subject matter is well arranged. Each topic is prepared in convenient, concise, outline form. While debatable points in diagnosis and therapeutics are given on some subjects, the major portion of the book expresses the practical, time-tested experiences of the author. There is a noticeable absence of references. The original illustrations are unusually clear and well balanced. In chapter 4 Dr. Cooke has introduced six brief but important pages on psychogynecology. He aptly implies that without a fundamental knowledge of feminine psychology, the physician is poorly prepared to practice gynecology. Perhaps the finest feature of the text is the feeling that the writer individualizes each patient and considers her particular gynecologic condition from the medical and psychologic aspects before prescribing surgery. The student will find this book a practical guide. The practicing physician will find it useful as a ready reference.

J. P.

Diseases of the Breast. Charles F. Geschickter, M.A., M.D. Pp. 829, with 593 illustrations. Price, cloth, $10.00. Philadelphia: Lippincott, 1943.

This is a new book, bringing together many time-honored and recent contributions to the etiology, diagnosis and treatment of mammary diseases. It is a comprehensive and critical monograph, with an analysis of much original material. By fully discussing each subject, yet confining himself only to the more essential information, the author covers completely all of the diseases of the breast, seems to omit nothing, and yet keeps the chapters smoothly knit together. The 593 photographs and drawings adequately illustrate the work, making it a valuable diagnostic reference.

The book is unique in its organization. Thirty-five chapters, each with a complete bibliography, are grouped into seven divisions, dealing in an orderly fashion with the normal development and physiology, the changes in pregnancy and lactation, chronic cystic mastitis, benign and malignant neoplasms, therapy, and a final part on the experimental production of mammary tumors.

The first part of the book, presenting the anatomic and physiologic variants encountered in the development of the breast, greatly aids in an understanding of the etiologic factors behind most mammarian diseases. The effect of childbearing and nursing upon formation of benign tumors, mammary cancer, and chronic cystic mastitis is well correlated with the normal pattern of development to maturity and postmenopausal involution.

In the analysis of a large number of cases, the endocrine aspects of chronic cystic mastitis and its relationship to malignancy are discussed. Two groups of benign tumors are commonly found in the breast. These are the fibroadenomas, with fibrous tissue predominating, and papillomas, composed of epithelial elements growing within a duct or cyst. Malignant changes occur more frequently in papillomas. Mammary cancer is presented as a group of several diseases. Theories of predisposition to cancer and factors influencing the rate of growth are included.

The treatment of all lesions, benign or malignant, depends primarily upon proper diagnosis. The fundamental principles in the treatment of mammary cancer are tabulated in a concise, usable set of ten rules, remarkably adequate as a criterion upon which to base the choice of therapy in most cases.

Probably less practical, yet most interesting, is the last part of the book, dealing with the experimental production of mammary tumors with estrogenic and other hormonal agents. The relationship between physiologic and pathologic states is stressed. Experiments of the author and others are cited, but few conclusions are drawn, the subject being left as a current and as yet unsettled problem.

The entire book is of value to everyone who has ever been faced with the diagnosis of a breast lesion. Few parts of the body present so much physiologic variation, such a diversity of pathologic lesions, and yet are so accessible to diagnosis.

R. K.

Chemotherapy of Gonococcic Infections. RUSSELL D. HERROLD, B.S., M.D., Associate Professor of Surgery (Urology), College of Medicine, University of Illinois, Chicago. Pp. 137. Price, cloth, $3.00. St. Louis: Mosby, 1943.

This work is one which brings the subject of gonococcic treatment up to date. There seems to be no aspect of this problem that has been overlooked by the author. In addition to giving very sound and satisfactory methods of treatment which proved to be effective in a large percentage of cases, the author goes into the treatment of the cases which proved to be refractory to the ordinary course of treatment. His discussion of the various situations which cause this failure makes this volume one of the most valuable that has appeared. The criteria of cure are most sound and should be understood and carried out by every one engaged in the treatment of gonorrhea. In order to make the presentation even more interesting, the subject of epidemiology and investigative problems has been very interestingly reviewed. It would seem that if everyone had the benefit of having read this volume, the efficacy of treatment of gonococcic infections would be reflected in a sorely needed decrease in the incidence of such disease.

WILLIAM P. HERBST, M.D.

REPRINTS RECEIVED

The following reprints have recently been received for which due acknowledgment is made:

"Book Review: The Biology of the Negro by Julian Herman Lewis." W. Montague Cobb. The Crisis, December 1942.

"Physical Anthropology and the Negro in the Present Crisis." W. Montague Cobb. Journal of the National Medical Association, September 1942.

"Primary Atypical Pneumonia, Etiology Unknown." John H. Dingle, Theodore J. Abernethy and others. War Medicine, March 1943.

"The Sprue Syndrome. A Symposium." John L. Kantor. Review of Gastroenterology, September-October 1942.

"Recent Mortality from Malaria in the United States." John Benjamin Nichols. Virginia Medical Monthly, December 1942.

"Method of Managing Shock Litters in an Army Hospital of the Cantonment Type." Alfred J. Suraci. Military Surgeon, November 1942.

"The Distribution of Nicotinic Acid in Foods." L. J. Teply, F. M. Strong and C. A. Elvehjem. Journal of Nutrition, April 1942.

"Trends in General Surgery: Review of Five Years' Surgical Experience at Harper Hospital." M. J. Thorstad, H. C. Saltzstein and A. D. McAlpine. Annals of Surgery, February 1943.

(*Continued from page 222*)

ever simple. Patients from this station should be evacuated if possible into a segregated portion of the hospital for 24 hours.

Those persons treating contaminated casualties must wear gas masks and protective clothing. At the end of treatment periods, which should be short, they too must be decontaminated.

Since chemical warfare has its greatest military value as a propaganda weapon against relatively ignorant and unprotected civilian populations, the most elementary general education tends to decrease markedly the likelihood of its use. Here in our cities the rules of prophylaxis would be particularly effective in preventing casualty production. Finally, these simple steps in first aid taken by the patient himself would keep total morbidity at a very low level.

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both to the physicians and the patients. Individualization of the patient and his therapy cannot be overemphasized. The small teaching syphilitic clinic makes its contribution to the polyclinic of the hospital and medical school.

1630 R Street, N.W.

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Specialist services may be secured ordinarily through the family doctor.

The medical profession shall be paid on a tariff and by a method agreed upon between the medical profession and the provincial commission. This may be by capitation, fee for service, salary, or a combination of any two or more methods.

There shall be set up in each province administrative regions in each of which there shall be a regional medical officer who must have had years of experience in private practice.

Provision has been made for the establishment of Medical Advisory Committees, both regional and provincial.

The act also provides for representation on the commission of those receiving the benefits as well as those providing them.

Safeguards are being introduced to guarantee that ample clinical material will be available in teaching hospitals associated with medical schools.

Hospital benefits include general ward service and laboratory facilities. Pharmaceutical benefits will probably be assisted by a formulary. Dental benefits will apply particularly to children and some remedial services.

The medical profession in the United States will watch with interest the development of health insurance in Canada, for there can be no doubt that its experience with this form of insurance will have a pronounced effect upon the practice of medicine in this country.

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Board, requiring all applicants for membership to make a personal appearance before it, was adhered to on all occasions during the past year except in the case of a few applicants who were in the armed forces and who were well known to the medical profession of Washington. The desirability of interviewing the applicants personally prior to their election is obvious. In a few instances it has resulted in the Board taking adverse action on an application. The Board's work is exceedingly important to the Society as upon it to a large extent depends the quality of the membership.

During the past year 52 applicants appeared before the Board. The Board also approved the proposal made by the Executive Board that the Surgeons General of the Army, Navy and Public Health Service be elected to Honorary Membership in the Society. The Society took favorable action on March 3, 1943.

Review of Committee Activities

This report, which was also mailed to the Society's membership, is several pages in length and covers most of the important activities of the various committees. Copies are obtainable at the Society's executive office.

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decrease. Furthermore, we cannot predict at this time the possible needs of certain rural areas, which now may be adequately supplied but which will require additional public health and medical services during 1943, should the Government move a large number of farm families into these areas for the food production drive. It is believed that joint action of the Public Health Service and the Procurement and Assignment Service will serve to meet urgent needs in civilian communities.

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PRESIDENTIAL ADDRESS*

". . . a Watchful Gaze on the Horizon"

FRED W. RANKIN, M.D., F.A.C.S.
Brigadier General, Medical Corps, United States Army; President, American Medical Association, 1942–43

THE realization that I am about to relinquish the office of President of this Association prompts me to pass in review our record, crammed with exciting events, and to scan the horizon anxiously for gathering storms which may imperil our course and test further our courage and endurance. That we have kept a steady course set toward the maintenance of the health of the nation and its armed forces during these turbulent times of worldwide hostilities, despite hurried preparation, bespeaks our Association's self-sacrificing devotion to duty and emphasizes its indomitable spirit and resolute determination—characteristics distinctly American. Never during its history or, for that matter, during the history of our country, has there been the urgent demand which current exigencies have imposed on our special talents and skills. The rapid, thorough and efficient manner in which these demands were met has been due in great measure to the astute foresight of our leaders, who, long before that fateful day when our enemies treacherously launched us into this holocaust, began careful preparations for the inevitable requirements which develop as a consequence of the military, industrial and continuing civilian needs for adequate medical care. That these plans were well contrived and intelligently executed is forcefully demonstrated by the continued improvement in the health of our Nation and our armed forces despite the fact that about 40 per cent of the usable medical personnel of the country has entered the services, and the added burden of a parallel gigantic industrial expansion that has been placed on the thinned ranks of the remaining civilian physicians. My deep gratification in reporting this thrilling and inspiring performance is heightened only by my humble respect and intense appreciation for the high honor you so generously bestowed on me as your President in this trying period, and for the distinct privilege in participating in these activities and in associating with the scrupulously sincere, assiduously attentive and particularly competent members of the Board of Trustees and the Executive Staff of this Association.

During the past year our country has been feverishly engaged in mobilizing and preparing its industries and manpower for war on a scale unprecedented in its history. All efforts have been directed toward a single fundamental purpose—the creation and preparation, as rapidly as possible, of a formidable military machine with irresistible striking power. This has required a national metamorphosis in which the medical profession has participated eagerly and wholeheartedly. Indeed, no other group has shouldered its responsibilities in this emergency with greater self-abnegation, more cheerful enthusiasm and more efficient adaptability. On us devolved the obligation of establishing a bulwark against epidemic disease and military casualties, both on the home front and on the farflung battlefields of this globe-encompassing war. Essentially our function is concerned with the conservation and maintenance of health. That we have performed this function successfully is demonstrated by the fact that we have given our civilian workers production superiority in the rapidly expanding war-geared industries, and our armed forces combatant superiority in the jungles of Guadalcanal, on the gale-swept North Atlantic and on the blistering deserts of North Africa.

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*Read before the House of Delegates of the American Medical Association, June 7, 1943.

The most difficult and exigent phase of the war, i.e., rapid mobilization, has been expeditiously concluded. Now our paramount problems are concerned with logistics; production has been achieved. Consideration is already being given to postwar planning even though it may seem little warranted at this time. It should be realized, however, that only by such long-range charting can the confusion and disorder which characterize immediate postwar reconstruction periods be averted. The manifold problems arising from these future developments will deeply concern and intimately affect us all. A rational solution of these problems depends on their thorough comprehension; but first they must be sighted as distantly and as clearly as possible. Accordingly we set a watchful gaze on the horizon.

It must now be apparent, even to those who have been most purblindly recalcitrant, that mighty influences are at work to effect epochal changes in the complexion of medical practice. While it would appear that these influences have suddenly loomed on the medical scene, it should be realized that they have long been forming and that the present military conflict has merely hurried their development and magnified their significance. That they can no longer be ignored seems difficult to controvert. We must face realistically these tremendously forceful socioeconomic trends which are intimately involved and deeply concerned with the Nation's medical problems. The directional sign posts of postwar planning may now be clearly read by proposals already made for broadening the social security program and extending the nation's economic resources to assure "adequate medical and health care for all, regardless of place of residence or income status." The complex connotations and inevitable implications of these plans and proposals make it quite apparent that the old system of medical practice will be considerably modified. If the limitless and baneful potentialities that can be projected into the science and art of the future of medicine are to be averted, it becomes imperative in this transition period that the wise and tempered counsel of the medical profession exert its proper influence. That our medical descendants should look back and point a culpable finger to our page of history which would read that our actions were "too little and too late" is a plaguing thought. Our responsibility in approaching and participating in these evolutionary processes is greater than many of us have been willing to admit; indeed, it is intimately involved with the medical security of our country as well as of our profession. Have we so long basked in the luxuriating rays of medicine as the apotheosis of professions that we have become languid and inelastic in our attitude and hesitant and fearful in our response to existing socioeconomic developments? I sincerely hope not.

Our motives are inherently sincere. They are based on desiderata to which we have held tenaciously and which we must guard assiduously lest future progress toward higher standards in medicine and professional tenets be jeopardized. Our ultimate objectives consist essentially in the provision of the best possible preventive measures against disease, the institution of the best possible forms of therapy and the ceaseless pursuit of advances and improvements in technical procedures and other prophylactic and therapeutic measures for clinical application. It requires no percipient degree of rationalization to realize that the complete fulfilment of these objectives for the entire Nation would necessitate the development of a comprehensive medical service.

It is becoming increasingly apparent that the trends now gathering momentum are directed toward some form of national health service as an integral function of the state. Proposals of this nature by governmental postwar planning agencies, both here and abroad, have been the subject of deep consideration, wide editorial comment, and cogent discussion. This mood has been further reflected in recent comments by various medical and nonmedical writers who have penetrated with incisive clarity to the very heart of this controversial subject. It has been stated by some that the financing of this type of medical service is a socioeconomic consideration and not a medical problem. While it may be argued that financial provision for the institution of such a service is a function of the commonwealth, I am impelled to emphasize the fact that the structural character of the organization of any such type of health service is tremendously important to doctors and is vitally concerned with the execution of their professional function. This entire subject must be brought into sharp focus by the light of trenchant and dispassionate thought in order to observe both the desirable as well as the possible apprehensive aspects of the contemplated proposals.

In the national fulfilment of our altruistic objectives it must be recognized that two essential provisions are required, namely, professional and financial facilities. It must also be recognized that the successful attainment of these objectives cannot be accomplished if in the implementation of any plan or proposal the professional facilities are subjugated to the authoritative management, traditionally dictated by political whimsy, of some legislative council controlling the financial provisions. These two provisions are interdependent and cannot be distinctly separated in approaching our objectives. The successful application of the former requires certain facilities supplied by the latter, which in turn can be guided intelligently only by professional knowledge. These vastly significant facts must be sincerely appreciated by all parties, both medical and nonmedical, concerned with this problem in their approach to its solution.

It is necessary to realize that the establishment of one of these contemplated medical services does not sound the death knell of private practice of medicine. These two forms of medical service are not incompatible, and their consideration must not be regarded in the light of apostasy but rather in the light of realism. They become incompatible only if in attempting their admixture certain undesirable ingredients are added. The problem is too difficult, the time is too short, and the stakes are too high for all concerned to allow these factors to influence our actions. All efforts must be harmoniously combined and closely coördinated toward the elaboration of an intelligent program which will permit a democratic as well as a comprehensive medical service with equally high professional and ethical standards.

It should be clearly understood that this embraces the concept of existing freedom of thought and action in the exercise of our profession and our scientific pursuits. No one is more keenly aware, no one more fully cognizant than I, of the resultant stultification of the science and art of medicine which would be occasioned by any loss or curtailment of this freedom. Here is a principle which is more than a heritage; indeed, it forms the supporting foundation of the art of medicine and the guiding light of the science of medicine. It was freedom to think and freedom to express thought in speech and in writing unhampered by the fearful consequences of traditional or legislative authority that permitted medicine to progress to its present exalted position in the field of science, and it is absolutely essential in its continued advancement. It is a principle, therefore, which we can never relinquish.

Since the challenges now confronting medicine will undoubtedly be multiplied as we approach the termination of this conflict and the commencement of the difficult reconstruction period, it becomes our responsibility and duty, with ever mounting importance and increasing urgency, to prepare to meet them now. In addition to the problems concerned with medical practice, we must be ready to meet the related problems of postwar rehabilitation of physicians—physicians whose entry into service involved personal sacrifices and the revamping of plans and ambitions, and whose return to civilian pursuits will necessitate numerous and variable readjustments and even resumption of specialized training.

These are prodigious tasks with manifold ramifications and far-reaching significance, but tasks which we must face with unflinching resolve. Their achievement will demand not only sincerity of interest, integration of effort, and clarity of thought, but also active and close collaboration with appropriate governmental agencies. We cannot disregard the growing interest of the public, the Government and various lay groups in the administration of medical care; nor can we afford to engage in a struggle for domination. The solution to these problems and the attainment of our objectives do not lie in that direction. They can be approached more expeditiously by a willingness to share their responsibilities and a readiness to coöperate in their consideration. The importance and urgency of these various problems commend the immediate establishment by this Association of suitable agencies for their investigation. In the institution of these agencies the purpose and vast significance of their function, the sharp delineation of their problems, and the need for their collaboration with others should be emphasized. They must also be impressed with the importance of these studies and their resultant proposals on which so much depends. Indeed, the plan of action which we institute, the attitude which we manifest, and the intelligence, zeal and judgment which we employ now in our efforts to solve these problems will greatly influence and actually determine the future standards of the medical service of our country and the cultural standards of our profession.

The last world conflict sent tuberculosis rates soaring in the nations of Europe and brought about a slight rise even in this country. Today increases are noted throughout Europe. We hope to prevent an increase in this country. There is still time to lay down an effective barrage which could prevent rise due to the war. Although we have no apparent increase yet, the circumstances of overcrowding, unsanitary living conditions, and undue fatigue are strikingly apparent to everyone.

Tuberculosis strikes down the very individuals who are most valuable as war workers—men and women between the ages of 20 and 60. When protected from this disease, they are the human assets upon which the presumption of victory is based. When attacked by tuberculosis—and one per cent of our manpower is attacked—they become liabilities who perform their jobs inefficiently, join the rolls of the absenteeism club, and unwittingly, yet relentlessly, spread sickness to others.

Among the specific measures that can be taken to prevent a wartime rise in tuberculosis is mass chest X-ray examination of workers in war industries and families in war-industry communities.

Early discovery of tuberculosis is only the beginning of the story. There must be follow-up of all newly discovered cases, including after-care and rehabilitation of arrested cases that stay on the job after medical supervision, as well as active and infectious cases that require sanatorium care or out-patient ambulatory care during convalescence. C. M. Sharp, M.D., U.S.P.H.S.

EPILEPSY—A CLINICAL AND THERAPEUTIC REVIEW

H. R. LITCHFIELD, M.D., F.A.C.P.
Brooklyn, New York

WE HAVE found that epilepsy begins in infancy or early childhood. Among patients seen in hospitals, the greatest number of cases begin in the years of puberty, the high point being 15 years for both males and females. Seizures which begin in the adult suggest the possibility of a recently acquired pathology, brain tumor, syphilis or cerebral arteriosclerosis. Among noninstitutional patients, as seen by the neurologist, more than one third begin to have seizures after the age of 20.

ETIOLOGY

In the study of any disease of unknown origin, there is a natural desire to find a single cause which can account for all cases. Many had hoped that a fundamental etiologic cause and a rational or specific form of treatment would be discovered for epilepsy, as it has been for diseases such as tuberculosis or diabetes. As regards epilepsy, even the presence of a definite organic injury of the brain such as a gunshot wound causes only a small proportion of persons so injured to develop seizures. As Gowers remarked, a spark is important in starting a fire, but it makes a difference whether the sparks fall on a pile of sand or a pile of gunpowder.

The popular view is that epilepsy is passed from parent to child. Epilepsy is transmitted as a recessive and not as a dominant trait.

Search for conditions which may cause or contribute to seizures has not been limited to the brain. There is almost no part of the body which has not been accused of causing seizures.

Except in isolated conditions, such as paroxysmal tachycardia or heart-block, there has been no association of cardiac lesions with convulsions. Rarely the diagnosis of epilepsy is attached to a patient with a complaint of "fainting attacks" who is found to have an irritable carotid sinus, pressure on which will duplicate his attack. A large proportion of patients have cold, clammy or cyanotic hands and feet, and examination of the venous blood from the arm demonstrates an abnormally low oxygen saturation, the result of stasis of blood in its passage through the small vessels.

More important are observations which might give evidence of any impediment to the blood flow through the brain. The theory of cerebral anemia as a cause of seizure has been accepted. It is known that the cerebral vessels are under the vasomotor and chemical control. Some patients show pallor of the face at the beginning of an attack, and pallor is always an accompaniment of syncope. In animals, stoppage of arterial flow to the brain causes loss of consciousness and tonic spasms. Surgeons have reported blanching of the whole exposed cortex in epileptic patients at the onset of a convulsion, although in these circumstances the pallor may be due to cutting off of the blood supply because of pressure of the brain against the edges of the bone opening.

A continuous supply of blood to the brain is imperative. Consciousness is lost when the blood leaving the brain is less than 30 per cent saturated with oxygen or if the cerebral circulation is interrupted for more than 10 seconds. The respiratory quotient of the human brain is close to unity, so that the food of the brain is exclusively carbohydrate, yet the brain contains no glycogen stores. For the sake of both oxygen and glucose, the circulation must go on.

However, the experimental work has not supported the anemia theory. During petit mal seizures there is no alteration in the pressure of the spinal fluid. Induction of fainting in epileptic patients does not lead to the precipitation of a patient's usual grand mal. The most convincing evidence against the responsibility of a generalized cerebral anemia has been direct observations from patients.

Localized anemia, as a contributing factor in the initiation of seizures, is a plausible hypothesis, provided it can be proved that the fit begins in a localized area of the brain; for example, the cortex in Jacksonian epilepsy and a midbrain area in other types. There is a variability in the response of different regions to stimulations by neoplasms, trauma or faradization, so that spasm of a vessel or vessels in a single small area is a possible cause of seizures in an area peculiarly susceptible to oxygen lack.

The difficulty of the whole problem is illustrated by observations on persons with irritable carotid sinus. Certain patients, who have a history of syncopal attacks, faint when digital pressure is applied over a carotid sinus in the neck. In the majority of these patients, the resulting syncope and convulsive movements of the arms seems adequately explained by the bradycardia, the abrupt fall of systemic blood pressure, and the cerebral anemia that ensues. However, in the occasional patient with the sinus reflex fainting occurs without any such circulatory failure. There must be a neuromechanism involved in the syncope of these patients, and it must be assumed that the same is predominantly at work in patients with epilepsy, a suggestion which is supported by work with the electroencephalograph.

In tetany there is a decreased activity of the parathyroids, with diminution of the calcium in the blood and spinal fluid. Patients with tetany often have generalized convulsions similar to those of epilepsy. The conditions which precipitate attacks of tetany, such as alkalosis and anoxemia, often induce seizures in epileptics; yet the calcium level in the blood and spinal fluid of epileptics is essentially normal, and benefit is seldom obtained from feeding calcium or administering parathyroid hormone.

The adrenals, because of their intimate association with the sympathetic nervous system, with circulation, and through the adrenal cortex with potassium (which in turn is an essential element in transmission of nerve impulses), are potential factors of importance. Injection of adrenalin seems to increase seizures, but removal of the adrenal gland is without definite therapeutic effect. Crile's operation of denervating the glands is still an experimental procedure.

Because of the close physical association of the pituitary gland with the brain, and the fact that so many patients have the build distribution of fat and hair, with low metabolism and increased tolerance for sugar which have been associated with abnormal function of the pituitary gland, this gland is worthy of further study. Seizures as an accompaniment of pituitary disorders occur frequently in the case of Fröhlich's syndrome, but very rarely in the case of tumor. No great benefits have been reported from the use of pituitary gland extracts routinely, although such use would seem to be indicated in patients showing clinical evidence of abnormality.

The gonads are open to suspicion because of the frequent appearance of seizures at the time of puberty or in relation to menstruation in women. Operations or the use of endocrine preparations are usually disappointing. It is not unlikely that seizures occurring at menstrual periods are simply indicative of the general increase in nervous irritability which occurs at that time.

Of body fluids, the urine has received the most attention. The older reports concerning abnormalities in body metabolism can be discounted likewise, such as the reports of toxicity and of abnormal ratio of urinary pH and ammonia. Because the ratio of potassium in nerve-cells to the sodium outside the cell seems to have an important influence on nerve irritability, interest is stimulated by the observation of McQuarrie that an alteration of the potassium-sodium ratio in the urine antedates seizures. This observation has not been confirmed by others, but further experimentation is wanted.

Although the many investigations which have been made have revealed no etiologically significant abnormalities in the physiology of patients having seizures, artificial alteration of certain of the physiologic processes have been found to exert a profound effect on the frequency of attacks. The natural inference has been that these alterations act in a specific manner, benefiting the patient by correcting an abnormal state. Closer scrutiny of the facts, however, leads to the conclusion that the benefit comes from raising the patient's threshold to seizures. Four physicochemical alterations are known to be important in modifying seizures.

The first necessity is a careful history. A history of seizures in other members of the family gives an important clue as to whether the constitutional factor is large. Most patients have carefully inspected their family tree in order to ascertain the presence or absence of seizures. A positive family history is not proof that acquired abnormalities may not play a part. A negative family history does not mean that acquired abnormalities can be found by careful examination.

Careful inquiry should be made for a history of birth injury, whether the patient was the first child, or whether there have been diseases most commonly associated with subsequent attacks. These diseases are meningitis, encephalitis, whooping cough and pneumonia. An effort should be made to uncover any history of head injury severe enough to result in unconsciousness. Seizures may not manifest themselves for many years after an injury.

Possible psychologic factors in the direction of fright, worry or emotional trauma should not be neglected. Inquiry should be made concerning any headache, to ascertain whether it is of the type called migraine; the existence of enuresis or sleep-walking in childhood; and whether other neuropsychiatric conditions have been present. In each case inquiry about the use of alcohol and the relationship of indulgence to seizure should be made. When a relationship exists, the seizure usually comes during the sobering-up process.

A difficulty often encountered is that of distinguishing between an attack of syncope and an epileptic seizure. Fainting occurs in young individuals who exhibit prominent evidence of sympathetic nervous system disturbance (sweating, flushing, sinus arrhythmia, tachycardia). It is usually preceded by fright, the sight of blood, or a similar emotional disturbance. It comes when the patient is upright and is preceded by a feeling of faintness and a blurring of vision. These circumstances, when present, point to a purely physiologic interruption of the blood supply to the brain. The disquieting feature is that occasionally persons who give histories of these benign fainting attacks may later have seizures which are without warning or apparent cause.

Attacks can be induced if patients breathe air which is low in its content of oxygen. The third consideration is that of water balance. Conditions associated with edema of the brain, such as eclampsia, concussion, alcohol poisoning, or water intoxication induced in animals by forcing fluids, are often accompanied by convulsions.

Seizures can be induced in epileptic children if they drink large quantities of water and are given pitressin subcutaneously. This is an antidiuretic measure resulting in a positive water balance. However, if normal saline is drunk in place of water, although there is fluid retention, seizures do not result. Apparently the electrolyte balance is of more importance than the water balance in the maintenance of the seizure-free state.

Winkelman and Fay have described the pathology of arachnoid villi and Pacchionian bodies in epileptics, consisting of their absence, improper development, acute reactions, and fibrosis. They believe that this interferes with the drainage of fluid and results in an accumulation of supracortical fluid which, because of its mechanical pressure, causes atrophy of the underlying brain and induces attacks. By means of X-ray and postmortem examinations, Gamble has studied the volume of fluid in the body of patients and believes there is abnormality in this respect, although he is not certain that the observed large excretion of fluid and chloride on the day of the attacks is not the result of the seizure.

DIFFERENTIAL DIAGNOSIS

If the definition of epilepsy as a symptom is accepted, finding the cause or causes producing this symptom is essential. The practical point lies in the possibility of finding remedial abnormalities.

Features which suggest hysteria instead of epilepsy are as follows: An hysterical attack is more likely to come as a culmination of some emotional storm; and it is more likely to appear in the daytime than at night, and in the presence of an audience. There are usually warnings of the attack. The patient may fall, but does not hurt himself. The rigidity is not associated with cyanosis. The clonic movements are not bilateral, rhythmical contractions, but consist of bizarre movements containing the element of purpose. The patient will throw his arms and legs about, grasp at objects or strike at those close at hand, lie quietly for a short space, then resume movements. There is no biting of the tongue nor loss of sphincter control, and Babinski's sign cannot be elicited. Consciousness may not be lost or pupillary reflexes abolished. After the attack has subsided, the patient feels none the worse for it; in fact, he may actually feel better than before.

The second type of convulsion, which is distinctive, is named after Hughlings Jackson. In the Jacksonian seizure there is a rhythmical muscular jerking which begins locally in one extremity, and spreads in a regular manner; the march of events may not proceed far enough to become bilateral, in which case there may be no loss of consciousness or the convulsion may become generalized, involving all extremities. The importance of eliciting the exact pattern of an attack is obvious; it may point to the site of a lesion and lead to surgical removal. Particularly is this true if the convulsion is Jacksonian in type, for the lesion then is cortical. A convulsion which does not have a definite "march" with the patient remaining conscious may yet be asymmetrical, with one side of the body first or more strongly involved, and thus give indication of a brain lesion.

All types of convulsive seizures other than the hysterical and the Jacksonian may be spoken of as epileptic. Seizures associated with intracranial tumor, eclampsia, general paresis, etc., are more likely to be bizarre or predominantly tonic, but, on the other hand, convulsions associated with such cerebral lesions may be of the usual generalized tonic-clonic type.

PROGNOSIS

Prognosis for life is considerably reduced because of the danger of injury in an attack or of the development of complications such as cerebral hemorrhage or pneumonia. As regards recovery, no generalizations can be made; patients may suddenly cease having attacks without apparent cause. It is probably not accurate to speak of epileptics as ever being "cured" as with tuberculosis; "arrested" is the better term. Patients may go for 5, 10 or 30 years without any manifestation and then begin again having seizures. The longer the remission, however, the greater is the hope of complete arrest.

PROPHYLAXIS

Prevention is better than cure, especially in a condition as distressing and with as little to offer in the way of specific treatment as epilepsy.

Preventive measures may come from genetics or from individual efforts.

1. *Genetics.* The general practice has been advising epileptic persons not to marry. In the general adoption of this type of advice, or in the more drastic measures of institutionalization or sterilization of patients, enthusiasts believe it possible to greatly reduce the number of epileptics. The situation needs to be reviewed in the light of present knowledge of inheritance. In the first place, it should be remembered that it is not seizures, any more than with cancer or typhoid fever, which are inherited, but only the susceptibility or the constitution. For each person who is defective, there are many who are apparently normal but carry and transmit the susceptibility to the defect.

If marriage is refused the epileptic, it must be refused also to his relations, for they likewise carry defective genes. Again, if the epileptic persons and their relatives are told not to marry, the advice should be given to the person with migraine. Finally, once eugenics is used againsr epilepsy, it should also be used to reduce othet ills that beset mankind, such as cancer, arterial disease, tuberculosis, etc.

2. *Prevention of Contributing Causes.* In general, stimuli that are present early in life when nerve insulation is deficient and reflex pathways are being formed, are most important. Possible deleterious influences are toxins or poisons carried by parents such as alcohol, infections, nutritional disturbances, and exposure to X-rays or radium. Insufficient data have been gathered on these subjects. The injuries which may occur at birth are of the greatest importance. These are not always preventable, but a more widespread recognition of the dangers involved will lead to better methods of preventing injuries or of treating them.

Laboratory examination is important and should include X-ray films of the skull for information concerning old fractures, the size and shape of the sella turcica, evidence of intracranial pressure; foci of infection in the teeth or sinuses; examination of the digestive tract in patients whose posture is poor or who give a history of constipation or other intestinal disorders. Spinal fluid examinations should include measurements of the pressure and of the degree and promptness of response to jugular compression; examination of the fluid for the number of cells and the amount of total protein; and the Wassermann and gold sol reactions. In special cases measurement of the basal metabolic rate and plotting of a blood sugar curve should be carried out. Abnormal findings may call for other special examinations. In only a minority of any group of patients whose presenting symptom is seizures will such detailed examination show abnormalities that are presumably related in a casual way to seizures. In only a small percentage of the minority can the observed pathology be corrected and patients relieved. For the sake of these few, however, such careful work as has been outlined is essential.

The public in the United States spends about $12,000,000 annually on the care of epileptic patients in institutions, and almost nothing for discovering means of prevention and cure.

The preconvulsive phenomena, unexplained faints, attacks of giddiness, sleepiness and myloclonic jerks, are possible danger signals. Authors have stressed the importance of signs of autonomic imbalance, such as areas of vasoconstriction of the skin. These proponents of theories often believe the conditions in which they are interested are the causes of convulsions; but they may be only the "soil" on which seizures are best able to take root. Possibly the electroencephalogram will offer evidence of abnormal electrical activity of the brain in suspected children and permit diagnosis and treatment in the preclinical stage.

TREATMENT

First consideration in treatment depends on the disclosures of careful examination. In case the general physical condition, posture, circulation, gastrointestinal function, and endocrine glands give evidence of abnormality, efforts should be made at correction. Posture may be improved by exercises for the strengthening of the abdominal muscles, wearing an abdominal support to correct standing, etc. General muscular development should be promoted through vigorous physical work or exercise. The bowels should be regulated by eating fruits and vegetables and by exercise. If necessary, a mild catharsis may be added. In case X-ray examination of the intestinal tract reveals megacolon, sympathectomy is of proved value. Patients showing a low metabolic rate should receive moderate doses of thyroid, but the rate should not be raised above normal. Patients showing evidence of pituitary disturbance may be benefited by pituitary medication. Abnormal menstrual function, when present, is usually in the direction of hypofunction. For this, one of the newer hormones, estrogen, for example, may be tried, since in these cases there have been focal attacks. If the encephalograph has shown unilateral or localized abnormality, operation must be considered. This is especially true in cases in which there is evidence of tumor or localized traumatic scar.

The proportion of patients who show defects which can be remedied is comparatively small. In a great majority of cases dependence must be placed on general measures.

Persons who are subject to seizures should lead as healthy a life as possible. The hours of sleep should be ample and uninterrupted. Occasions of haste, worry and excitement should be avoided. The hours of eating and sleeping should be regular.

The importance of diet has been greatly overestimated. The exception to what has been said about diet concerns the use of the ketogenic diet. This is an advance which has been proved as a definite benefit for certain patients. The ketogenic diet has grown out of the use of fasting. Geyelin was the first to show under scientifically controlled conditions that patients having frequent seizures were often free from such seizures while fasting. Geyelin's results with his first cases were so striking that the procedure was followed by a number of investigators. It was found, however, that benefit usually lasted only during the period of fast.

The principle of the ketogenic diet is to keep the fat in the diet high enough and the carbohydrate low enough so that there is incomplete combustion of the fat, as evidenced by the presence of ketone bodies in the urine. Patients on this diet should have the urine tested by the ferric chloride or the sodium nitroprusside test daily. The diet should be made up first of protein to the amount of 1 or 2 grams per kilogram of the body weight. The fats and proteins should be in the ratio of 2, 3 or 4 grams of fat per 1 gram of combined protein and carbohydrate. The total calories should be sufficient to nearly maintain the patient's usual weight. There should be a sufficient amount of vitamins and salts. The diet resembles that given to diabetics in the pre-insulin days. It is a difficult diet to maintain because of the necessary monotony and the very sharp limitation of carbohydrate foods. The chances of success are small unless there is complete coöperation on the part of the parents and the child.

Deleterious effects from the diet have not been reported. After a patient has been free from attacks for a considerable period, the usual diet may be resumed gradually. Possibly in mild cases a reduction of carbohydrate intake, without the actual production of ketosis, may be of benefit.

Another method of altering the seizure threshold which is used therapeutically is the production of a state of dehydration. Patients are placed in the hospital, their natural fluid intake and output charted, and encephalography performed. The patients are then put on a limited intake of from 8 to 20 ounces (240 to 600 c.c.) of liquid per day, including water, milk, tea, coffee, soup, etc., depending upon the severity of the convulsive attacks. Magnesium sulfate, in doses of from 1 to 3 ounces (30 to 90 c.c.) in 6 ounces (180 c.c.) of water, given by mouth on alternate days, has been employed in some cases to hasten dehydration.

A warning is given that the dehydration treatment must be controlled with the same exacting care that is given to the patient suffering from diabetes insipidus or other disorders. The method falls short if the patients exceed the fluid level of compensation established for them. This is determined by studies of the urinary output. If the output is more than the intake, fluid is being obtained either from the food or surreptitiously. Patients have been held on a 12 ounce (360 c.c.) total fluid intake for over a year without any injurious effects, and 6 to 10 ounce (180 to 300 c.c.) levels have been held for many weeks without any injury to the patient whatsoever.

For treatment during attack, the patient, if he has a sufficiently long aura, should place himself in a safe position. Inhalation of a pearl of amyl nitrite in the period of aura may ward off the attack. The effect is assumed to be due to dilatation of cerebral vessels, but may be the result of the unpleasant sensations induced. Sometimes stimulation of a patient's interest or his sensory nerves will prevent his "going into" an attack. About all that can be hoped for during an attack is to keep the patient from injuring himself and to make him comfortable. If he has fallen to the floor, a pillow should be placed under the head and a handkerchief or some soft material placed between the teeth so that he will not bite his tongue or lips. Force is to be avoided. Too often the teeth and gums of patients suffer more from the frenzied effort of bystanders or nurses than from the attack itself. During the period of apnea and intense cyanosis, the patient's head may be held toward one side and the jaw pulled forward, but care should be taken against false teeth or objects which may have been in the patient's mouth.

Recently many clinicians have found that sodium diphenylhydantoate has greatly decreased the number of attacks. Some have found, as I have, that many cases have not had any attacks since taking this medication. I have leaned heavily on "Denyl Capsules," a trade name for the above medication. It has given the patient the feeling of freedom from that anxiety of always being on the alert. They come in 0.1 Gm. ($1\frac{1}{2}$ grains) capsules and are given 2 or 3 times daily. From clinical follow-up of more than a dozen cases continued relief from attacks was noted in 10 cases. One youngster, a 14-year-old female, had recurrent attacks 6 weeks apart, always premenstrual, but for the past 2 months she was free from any attack although she had menstruated. The other case reported one attack 3 months after taking the medication, but I have not had any word from this patient since, although follow-up cards have been sent out.

Medication by sedative drugs simply acts in repressing seizures; there is no curative element other than that patients who can be kept free from attacks for a sufficiently long time may tend to lose the habit. Because drugs in epilepsy are only sedatives, care must be taken that harm instead of good does not result. Medication should not be continued unless its use is attended by a decrease in the frequency or severity of attacks, or if untoward effects on the patient's mood or mentality are noticed.

Bromide has been used for over a half century. The objection to continued use of bromide is that patients often become stuporous and mentally sluggish, or have a disfiguring rash. When the dose is pushed to the point of stopping attacks, the mentality may have been slowed to the point at which the cure is worse than the disease. Bromides are the usual chief constituent of the many patent medicines which are offered to the public. Bromides, as the triple salt, may be given in the dosage of 10 grains (0.65 Gm.) thrice daily, with double this amount if the patient is watched for signs of bromidism. The salt is more effective if the intake of sodium chloride is reduced, since the bromide replaces

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ALLEVIATION OF HYPERTENSIVE SYMPTOMS

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EXPERIMENTS designed to further our knowledge of hypertension through the reproduction of this condition, either by Goldblatt's method of clamping the renal arteries or by the denervation of the carotid sinuses, so far have proved disappointing in obtaining therapeutic benefits. Knowledge of the underlying pathology that leads to the development of hypertension has been extended, but the problem of its etiology still remains unsolved. The results of new endeavors in a causative therapy of hypertension, either by the use of kidney extract or by cutting the sympathetic nerves in various ways, likewise have been quite discouraging. The very few cases reported to be due to unilateral kidney disease and to have been cured surgically are not convincing, since nonspecific operative therapy (or none at all) occasionally has equal results. It must be realized that experimental hypertension does not produce the pathognomonic vascular hyperreactivity of genuine essential hypertension; also, that sympathectomy does not abolish this characteristic. Curiously enough, total sympathectomy in dogs with experimental hypertension does not even reduce the arterial pressure.[1] The hope that "dramatic discoveries are just around the corner"[2] is indeed quite shattered today. The main problem of essential hypertension still seems to be hinged on a central nervous disorder, rather than on an endocrine or metabolic disturbance, possibly coupled with a constitutional or hereditary vascular weakness.

In therapy the psychosomatic factors in the pathogenesis of essential hypertension demand a greater attention than they received heretofore. The value and success of psychotherapy in some instances is striking. It tends to "unwind" subconscious conflicts, relieves anxiety, and improves social adjustment. By and large, however, one is compelled at one time or another to resort to sedatives and hypnotics. This is quite unfortunate, since it is with reluctance that one obscures the alertness and productivity of mentally sound patients. On the other hand, in many cases an abundance of nervous tension and energy struggles against the depressor action of the drugs, so that higher doses are required to obtain the desired central and peripheral relaxation. Moreover, these drugs, given over a prolonged period of time, precipitate an exhaustive fatigue even in nontoxic doses. Besides, there is always the risk of chronic bromism, barbiturism, etc.

A recently introduced organic compound of calcium and bromine was studied clinically for its efficacy in hypertension and seems, on logical grounds, to minimize the aforementioned inconveniences and disadvantages. The inorganic calcium bromide combines the sedative action of brom and calcium; the brom acts centrally, allays nervous excitement, anxiety and apprehension, whereas the calcium exerts its main effect on the neuromuscular and neurovascular apparatus through a calmative influence upon the vegetative nervous system. Besides, calcium counteracts some undesired by-effects of the brom salt itself, particularly by reducing cell permeability and limiting exudation. However, calcium bromide is unpalatable, irritating to the digestive tract, and injectable only in dilute solution. Its ratio of calcium to bromine is 1 to 4 with bromine preponderant, a disproportion that is emphasized because of the more rapid excretion of calcium. I used calcium bromine galactogluconate (trade name Calcibronat) in which the ratio of calcium to bromine is 1 to 2. It has the further advantages of being well tolerated orally and safely administered parenterally. The synergistic effect of calcium and bromine is indicated clinically by the fact that an average dose contains only half the amount of bromine found in an equivalent dose of the inorganic bromides.[3] The drug has been used extensively with favorable results in neurodermatoses as well as in other psychosomatic disorders, and the results obtained recommended it for the multiple nervous symptoms associated with essential hypertension.

Nine patients with severe hypertension were selected for this study. All were known to the physicians of the clinic because of their various and continuous complaints of years' duration. The symptomatology consisted of all those manifestations usually found in long-standing hypertension: headaches, dizziness, nausea, throbbing, buzzing, palpitation, tiredness, apprehension, insomnia, etc. All patients had been previously treated by sedation (bromides, chloral hydrate, or barbiturates); some, also with xanthines, iodide and vitamins; individually for obesity, menopausal disorders, heart complications, etc. They were all under observation of the social service department. No decisive changes in their social status or environment occurred during observation, except that 2 of the patients resumed work during the course of treatment. No other medication except incidental drugs for intercurrent conditions was administered.

Calcibronat was injected intravenously on the average of 2 to 3 times a week for a period of 12 months in 7 cases and 6 months in 2 cases. Occasionally an additional dose was given orally in the form of granules or effervescent tablets. In most cases 4 to 6 successive injections of calcium gluconate were given as a control; the difference in material injected was unknown to the patient. An intermission in the course of injections for the vacation period of 4 weeks served also as a control of the effectiveness of the treatment. The patient's renal and cardiac functions were carefully checked at the beginning and end of the treatment. Blood pressure was measured at frequent intervals by different observers.

REPORT OF CASES

Case 1.—M. B., a woman aged 41, record H 708, was known to be hypertensive for the preceding 7 years. Her average blood pressure had been 240/130. Her chief complaints had been severe headaches, weakness and insomnia. The eye grounds showed the arteries to be narrowed and of variable caliber, with 1 minute hemorrhage. The blood nonprotein nitrogen was 24 mg. The electrocardiogram showed inverted T_4. Treatment was started on February 14, 1942 and finished on March 20, 1943, and consisted of 74 injections of Calcibronat and 6 of calcium gluconate. During this time there were 2 short periods of cardiac failure, compensated by bed rest and digitalis. Partial work was resumed in July 1942 and was continued to the end of January 1943. At the end of observation the blood nonprotein nitrogen was 27. The electrocardiogram was essentially unchanged, and the weight remained constant.

The blood pressure dropped to a slightly lower level; a diastolic pressure of above 135 was not observed after the beginning of treatment. The systolic pressure varied from 245 to 215, the diastolic from 135 to 105. The average blood pressure was 230/120. There were many weeks without complaints, either spontaneous or upon interrogation. Occasionally there occurred a day or two of headaches. During the period of administration of calcium gluconate the condition was unchanged. After 4 weeks' intermission, the patient volunteered that she felt better when under treatment.

Case 2.—L. D., a woman aged 62, record L 14733, was known to be hypertensive for 3 years. The average blood pressure had been 184/100. The chief complaints had been throbbing in the head, dizziness, palpitation, insomnia and nervousness. The heart was moderately enlarged. The electrocardiogram was normal. Treatment was started on January 6, 1942 and finished on March 20, 1943 and consisted of 78 injections of Calcibronat and 6 of calcium gluconate.

During treatment the patient was observed to be less tense and apprehensive, complained little and almost only when questioned. She volunteered that she felt particularly improved during the hot spells of the summer, at which time she used to suffer most. Additional Calcibronat granule dosage was beneficial in abolishing nausea and overcoming insomnia. The blood pressure during observation varied widely from 218/100 to 150/84, the average being 184/92. The electrocardiogram at the end of treatment was unchanged except higher T_4 waves. The blood nonprotein was 25 mg.

Case 3.—E. H., a woman aged 42, record P 366, was known to be hypertensive for 4 years. The average blood pressure had been 198/114. The urine showed a heavy trace of albumin. The blood nonprotein nitrogen was 24 mg. The electrocardiogram was normal. The chief complaints were headaches, dizziness, tiredness, and shortness of breath. Treatment was started on March 10, 1942 and ended on March 11, 1943. It consisted of 57 injections of Calcibronat.

After 4 months' treatment there was an intermission of 10 weeks. The patient reappeared in the clinic stating that she felt generally better and stronger when she received the injections and asked for further treatment. After 1 month she paused again, only to return 10 weeks later with complaints of increased headaches and nausea which improved during subsequent treatment. In December 1942 she started to work and was continuing to do so when observation was terminated. At this time the blood nonprotein nitrogen was 24 mg., and the electrocardiogram was abnormal, with low T waves and inverted T_2 and T_3, indicating increased left ventricular strain. The blood pressure during treatment ranged from 220/118 to 170/110, the average being 195/114.

Case 4.—C. H., a woman aged 47, record G 1424, was known to be hypertensive for more than 2 years. Menopause had occurred 10 years before. The average blood pressure had been 190/130. Electrocardiogram and nonprotein nitrogen were normal. The chief complaints had been headaches, dizziness and nervousness. Treatment covered the period from March 24, 1942 to March 20, 1943 and consisted of 91 injections of Calcibronat and 6 of calcium gluconate.

After an initial period of 4 weeks' treatment there was general improvement, less headache and no spontaneous complaints. After 4 weeks' vacation, the headaches and dizziness were more pronounced but improved considerably after 3 injections. While under treatment with calcium gluconate she had slightly more discomfort than usual. During the latter period of observation the patient complained of dizziness but only after overexertion, and of nausea after long subway rides. The blood pressure during treatment ranged from 198 and 152 systolic, and 122 and 88 diastolic, with an average of 175/105. Laboratory tests were unchanged.

Case 5.—C. H., a woman aged 57, record G 11369, was known to be hypertensive for 5 years with an average blood pressure of 222/132. The chief complaints had been severe headaches, dizzy spells, nausea, weakness, great nervousness and insomnia. Treatment was begun on April 23, 1942 and ended on December 19, 1942 and consisted of 32 Calcibronat injections with 2 of calcium gluconate. The blood pressure during treatment ranged from 216 to 188 systolic and from 125 to 110 diastolic, the average blood pressure being 202/113.

The patient improved moderately in her subjective complaints. During an interval of 4 weeks she felt well in the beginning; later the headaches and dizziness were worse and she asked for continuation of the injections.

Case 6.—T. L., a woman aged 47, record E 6083, was known to be hypertensive for 4 years with an average blood pressure of 176/119. Laboratory examinations were normal. The headaches were almost constant and there were dizziness, generalized pains, hyperirritability, and nausea. Treatment was begun on October 15, 1942 and ended on March 18, 1942 and consisted of 34 Calcibronat injections with 6 of calcium gluconate. During treatment there was 1 week of hospitalization for cholecystitis.

The complaints diminished appreciably. She was, on the whole, more content, slept better than in years, and assisted in household duties to a greater extent. While calcium gluconate was being administered the nausea and dizziness were more pronounced. The blood pressure during treatment ranged between 186 and 165 systolic and 110 and 105 diastolic, the average being 175/108.

Case 7.—J. P., a man aged 49, record K 1296, was known to be hypertensive for 5 years. The average blood pressure had been 220/140. Changes in the ocular fundi had been noted in 1938, and the blood nonprotein nitrogen was 40. In 1941 the electrocardiogram showed evidence of myocardial damage. The nonprotein nitrogen at the beginning of treatment was 29 mg. There were severe headaches, nausea and epigastric distress. Treatment was begun on March 12, 1942 and ended on March 13, 1943. It consisted of 90 injections of Calcibronat and 6 of calcium gluconate.

The blood pressure during treatment ranged from 195 to 150 systolic and from 138 to 105 diastolic, with an average of 173/122. At the end of observation the nonprotein nitrogen was 25 mg. The electrocardiogram was unchanged. During treatment there were few spontaneous complaints, but occasionally some headache. After 4 weeks' intermission the headaches increased; he volunteered that he felt much better when he was getting the injections and asked for continuation of treatment. No essential change was observed during the period of calcium gluconate injections.

Case 8.—D. P., a woman aged 56, record B 2432, was known to be hypertensive for 5 years. The average blood pressure had been 170/98. The complaints were headache, dizziness, throbbing sensation and buzzing noise in the head and poor sleep. Treatment was started on February 10, 1942 and stopped on February 27, 1943. It consisted of 60 injections of Calcibronat. The blood pressure during treatment varied between 180 and 158 systolic and between 105 and 78 diastolic. The nonprotein nitrogen at the end of treatment was 29.

Administration of the drug was difficult because of deeply imbedded veins. In spite of this fact, which caused the patient much inconvenience, she asked for continuation of the treatment because it relieved her almost unbearable "buzzing." The headaches and sleep also improved. The patient seemed considerably more content and more at ease during treatment than at other times.

Case 9.—E. R., a man aged 56, record D 7311, was known to be hypertensive for 10 years. In 1932 amputation of the right leg and thigh was performed because of obliterative gangrene. In January 1942 hemiparesis of 24 hours' duration had occurred, with no lasting aftereffects. In October 1942 there had been a short hospitalization because of heart failure. The average blood pressure before treatment had been 205/120. The nonprotein nitrogen was 28 mg. The electrocardiogram showed evidence of myocardial damage. The complaints were headaches, dizziness, weakness, dyspnea on exertion, and nocturia. During observation the patient underwent 2 operations for glaucoma. Treatment was begun on October 17, 1942 and ended on March 20, 1943. It consisted of 39 injections of Calcibronat and 6 of calcium gluconate.

The blood pressure during the course of treatment ranged between 196 and 160 systolic and between 116 and 90 diastolic, with an average pressure of 178/103. At the end of treatment the nonprotein nitrogen was 51 and the electrocardiogram was unchanged. The patient volunteered many times that he felt much stronger, was able to walk for longer periods, and generally felt better than he had for many years.

COMMENT

The shortage of bromide material due to wartime conditions interfered with the intention to enlarge this series of cases in number as well as in duration of observation. The conclusion reached thus far, however, justifies the publication of the results obtained. All 9 cases of advanced and severe essential hypertension presented the typical manifestations and complaints of this condition. All were treated previously with customary medication. Altogether 556 intravenous injections of calcium bromine galactogluconate were administered intravenously, as well as 38 injections of calcium gluconate as a control. As was to be expected, the changes in the degree of blood pressure were not appreciable, although it was surprising that a drop in the average pressure was noted in 8 out of the 9 cases. The average lowering of the systolic figures was 12, and of the diastolic figures 13.3 points. In none of the cases were untoward results observed, either in regard to the application or in regard to any toxic physical or mental manifestation. The improvement in the general condition of the patients was impressive. Symptoms and complaints were diminished; greater contentment, with mental and physical relaxation, was obvious to all observers. Two patients were able to resume work during observation. During a control period of injections of calcium gluconate the difference in the injected material was unknown to the patient, and the general condition was only slightly worse.

SUMMARY

A series of 9 cases of severe essential or malignant hypertension was treated intravenously with a preparation of calcium bromine galactogluconate over a period of 12 months in 7 cases and over 6 months in 2 cases. Marked beneficial results in allaying symptoms were observed in all cases, surpassing those previously obtained with customary hypnotics and sedatives.

N.B. The Calcibronat (calcium-bromido-gluconate) used in this study was supplied by Sandoz Chemical Works, Inc., New York City.

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57 West 58th Street

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CLINICO-PATHOLOGIC CONFERENCE*

THE DEPARTMENT OF MEDICINE, GALLINGER MUNICIPAL HOSPITAL

PORTAL CIRRHOSIS IN TWO CHILDREN OF THE SAME FAMILY

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January 21, 1943.

Dr. Yater: Dr. Evelyn Griffin, the intern on Ward R, will present the first case.

Dr. Evelyn Griffin: This patient, R. deH., case no. B 62942, is a white boy, aged 17 years, whose occupation is farming. He was admitted on December 29, 1942, at which time he was complaining of shortness of breath and swelling of the abdomen. The patient states that 3 weeks prior to admission he developed "yellow jaundice" and 2 or 3 days later his feet began to swell. Then shortly followed progressive swelling of his abdomen. The only other complaints were dyspnea and abdominal discomfort due to distention. The important facts in the past history include an episode of swollen ankles 2 years ago and an attack of jaundice 3 years ago. This boy is the fourth of 8 children. All the children, the father and the mother are normal except for a 15-year-old sister whose case will be discussed next. The patient reached the seventh grade 2 years ago when he was 15 years old, and he left school at that time.

Physical examination on admission showed a poorly developed, poorly nourished, orthopneic, dehydrated white boy who appeared to be about 10 years of age although his stated age is 17. There was generalized marked bronzing of the skin. The temperature was 98.6°F., the pulse rate 96, and the respiratory rate 40. The blood pressure was 90/70. There was absence of pubic and axillary hair. Spider angiomata were present on the anterior and posterior walls of the chest and on both arms. There was a moderate icteric tinge to the sclerae. The thorax showed marked flaring of the lower thoracic cage with a prominent venous pattern over the anterior surface of the chest. There also was moderate pitting edema of both anterior and posterior surfaces of the chest up to the level of the fourth rib. The lungs were clear. The diaphragm was elevated on both sides. Examination of the heart was essentially negative. The abdomen was tremendously distended, with bulging and flatness in the flanks. Marked edema of the abdominal wall was present. A fluid wave and shifting dullness also were noted. The liver was not palpable. The spleen, which was firm, was palpable 5 fingerbreadths below the costal margin and extended almost to the midline. There was also marked edema of the external genitalia and both lower extremities. The external genitalia were underdeveloped.

Abdominal paracentesis was performed soon after admission, and 5 liters of clear, straw-colored fluid was obtained. The patient was not able to urinate and a dorsal slit was necessary before he could be catheterized. Abdominal paracentesis was repeated 2 days after admission, and following this the patient became comatose and apparently had an episode of hepatic insufficiency. He was given large quantities of concentrated albumin and plasma, and although he was apparently moribund for several days he began to improve slightly, and the edema and ascites decreased.

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* These conferences are held under the Chairmanship of the Head of the Department of Medicine, Dr. Wallace M. Yater, every Thursday from 2 to 4 p.m. Cases of particular interest, or those presenting diagnostic problems, are presented and discussed. This is a resumé of the discussion of such a case.

A resumé of the laboratory examinations is as follows: The hemoglobin was 96 per cent; the red blood cells numbered 4,780,000 (hemoconcentration), and the white blood cells 4,550 with 30 per cent lymphocytes, 4 per cent monocytes, 9 per cent band forms and 57 per cent neutrophiles. The urine on admission was dark brown with an alkaline reaction and a specific gravity of 1.032, was negative for albumin and sugar, and contained bile; microscopic examination showed an occasional leukocyte. Kahn test of the blood was negative. The blood cholesterol was 130 mg. (normal 120–200), and the cholesterol esters were 102 mg. (normal 45 to 70 per cent of cholesterol). The serum albumin 1 day after admission was 1.69 Gm. (normal 4.5 Gm.), 6 days after, 2.05 Gm. The serum globulin on admission was 3.47 Gm. (normal 2 Gm.), 6 days after, 2.81 Gm. The icterus index was 57 (normal 4 to 6) and the van den Bergh reaction 8 mg. and immediate direct (normal 0.2 mg.). The blood urea nitrogen was 18 mg. (normal 11 to 15 mg.). A skin test with potassium ferrocyanide and HCl yielded a definite blue color, but a biopsy of the skin was negative for the presence of hemosiderin. Fragility tests of the erythrocytes were within normal range. A complete hemogram 6 days after admission showed 50 per cent hemoglobin or 6.9 Gm.; the red blood cells numbered 2,430,000, the maximum size of the red blood cells was 11.2 μ, and the average size of the red blood cells 8.4 μ. The white blood cells numbered 2,700, with 24 per cent lymphocytes, 64 per cent polymorphonuclears, 3 per cent monocytes, 5 per cent band forms, 2 per cent eosinophiles and 2 per cent basophiles. There was very slight polychromatophilia, moderate hyperchromia and slight poikilocytosis. The sedimentation rate (Wintrobe method), corrected, was 12 mm. in 1 hour. The bleeding time was 4 minutes, the clotting time 8½ minutes and the clot retraction time 45 minutes. The volume index was 1.22 (normal 0.85 to 1). The mean corpuscular hemoglobin was 29 micrograms (normal 27 to 32), and the mean corpuscular hemoglobin concentration was 26 per cent (normal 33 to 38). The saturation index was 0.87 (normal 0.8 to 1).

A roentgenogram of the femora, tibiae and fibulae shows no evidence of any bone pathology. The epiphyses are normally outlined.

DR. YATER: Before we discuss this case, Dr. Arnold Gould, Intern on Ward Q, will present the next case.

DR. ARNOLD GOULD: The patient, M. deH., case no. B 63407, is a 15-year-old white girl who was admitted on January 8, 1943. She is the sister of the previous patient. She was born during a normal spontaneous delivery. Measles, mumps, chickenpox and pertussis have been her only illnesses. She apparently developed normally up to about 8 years of age. During the following years she noticed she was not growing as much as her classmates, although she progressed satisfactorily in her school work. She stated that she has increased 4 inches in stature and 20 pounds in weight during the last 3 years. At present she is 4 feet 6 inches tall and weighs 75 pounds. She has never menstruated. She was hospitalized in 1939 at Children's Hospital. At that time the hospital chart noted complaints of swollen abdomen and intermittent diarrhea for 5 years prior to 1939. The diarrhea occurred about 2 or 3 days a week, and the stools were watery, frothy and yellow but not particularly bulky or large. There was no blood. Physical examination at that time revealed a malnourished, dwarfed, white female with a large abdomen. Her blood pressure was 100/60. The tongue was red and smooth with a beefy tip.

The anterior, posterior cervical, axillary and inguinal lymph nodes were slightly enlarged. There was a soft systolic murmur at the left of the sternum. The abdomen was protruding and the veins were prominent on the abdominal wall. The spleen extended 4 fingerbreadths and the liver 2 fingerbreadths below the costal margin. There was shifting dullness in the flanks.

The hemoglobin was 12.5 Gm., the red blood cells numbered 3,500,000, and the white blood cells 3,500 per cu. mm. of blood, with 60 per cent polymorphonuclear leukocytes, 2 per cent eosinophiles and 34 per cent lymphocytes. The urine was normal. The blood platelets numbered 150,000 per cu. mm. The fragility test was normal. The van den Bergh reactions were normal, the serum albumin was 3.5 Gm., the serum globulin was 1.5 Gm., and the blood nonprotein nitrogen was 26 mg. per cent. Agglutination tests for typhoid fever, paratyphoid fever and undulant fever were negative. The stools showed no ova, parasites, occult blood and no excessive fat. Stool cultures showed Aerobacter aerogenes. A bone marrow smear showed moderate hyperplasia of myeloid and erythroblastic elements. The fasting blood sugar and gastric analysis were normal.

Roentgenograms of the long bones indicated a bone age of 11 years. An X-ray film of the chest showed considerable calcification of the right hilar lymph nodes and at the base of the lung. A flat plate of the abdomen showed the spleen to be slightly enlarged. A roentgenogram made in 1933 showed the liver and spleen to be normal in size. Tuberculin (P.P.D.) test and Kahn test of the blood were negative.

At this time physical examination reveals an underdeveloped white girl who appears younger than her stated age. There is absence of the secondary sex characteristics. The skin is normal in color. There is a soft systolic murmur heard best at the apex. The spleen is palpable, firm, and extends down to the level of the umbilicus and medially almost to the midline. The liver is palpable 2 fingerbreadths below the right costal margin. There are dilated superficial abdominal veins and several spider angiomata on the abdomen and 1 on the right arm.

The hemogram shows 70 per cent hemoglobin, the red blood cells number 3,230,000, and the white blood cells 4,800 per cu. mm. of blood, with 42 per cent lymphocytes, 50 per cent neutrophiles, 2 per cent band forms and 8 per cent mononuclears. The blood urea nitrogen is 13.6 mg., and the fasting blood sugar is 71 mg. The blood cholesterol is 187 mg., and the cholesterol esters 170 mg. The Kahn test of the blood is negative. The bromsulfalein test shows 10 per cent of dye in the blood at 5 minutes and none present in 30 minutes. The hippuric acid test gives a return of 3.5 Gm. in 4 hours.

DR. YATER: Dr. Bernard Pasternak and Dr. William T. Saccardi are the medical residents in these cases. I shall ask them to begin the discussion of the cases.

DR. BERNARD PASTERNAK: The disease seems to be familial. In regard to the boy the anemia, leukopenia and jaundice suggest Banti's disease, Gaucher's disease, or idiopathic portal cirrhosis.

DR. WILLIAM T. SACCARDI: What has been said for the boy also applies to the girl, although her condition has not progressed as far. We are planning to make a biopsy of the spleen.

DR. YATER: Dr. Thomas F. Keliher is the visiting physician in charge of the boy. I shall ask him to discuss the cases.

DR. THOMAS F. KELIHER: The onset of this disease probably began before the onset of puberty in the girl because the secondary sex characteristics are absent. Juvenile cirrhosis is unusual in the same family and we attempted to obtain a history of the use of some vermifuge. Carbon tetrachloride as a vermifuge may cause cirrhosis. Both patients probably have been exposed to some hepatotoxic agent.

DR. YATER: Dr. Hugh H. Hussey is in charge of the girl.

DR. HUGH H. HUSSEY: The common denominator in both cases is the splenomegaly and evidence of venous obstruction. In the boy the ascites may be due partly to the altered albumin-globulin ratio. I suggest that they both have cirrhosis of the liver. It is attractive to assume that both have been exposed to the same toxic agent. Hemochromatosis is unlikely. I think they have primary hepatic disease.

Dr. Sol Katz: Most observers agree that cirrhosis is the end result of diffuse liver damage. It is a chronic diffuse progressive hepatitis due to chemical, metabolic or infectious factors. Catarrhal jaundice, which is essentially an infectious hepatitis, occurs as isolated cases or in family or sectional epidemics. For example, epidemics occur in certain streets of a town, or whole cities or states. Anderson in reporting an epidemic in Denmark noted that it was more prevalent in the country than in the cities. He also observed that jaundice in hogs was common in Denmark and that its presence did not condemn meat from the hogs as food. There was a correlation between the occurrence of infectious hepatitis in human beings in different districts and the number of jaundiced pigs sold. Blum also recorded the cases of 2 friends who had partaken of the same food and developed infectious jaundice within a few days. The only portion of the meal which could possibly have caused it was pork. Is it not possible that both of these cases developed an infectious hepatitis following the ingestion of pork from jaundiced pigs on their farm, and that the resultant hepatitis did not subside but continued and resulted in chronic diffuse progressive hepatitis, that is, cirrhosis? I think it would be well to question the patients regarding the presence of jaundice among their pigs, remembering of course the difficulty with which jaundice would be detected in animals.

Dr. Yater: Both of these children, a brother and a sister, have cirrhosis of the liver. Three types of cirrhosis must be considered: (1) splenic anemia or Banti's disease, (2) hemochromatosis, and (3) primary cirrhosis of the liver. Splenic anemia must be seriously considered. This is a disease usually resulting from obstruction, commonly thrombosis, of the splenic vein or veins, and producing congestive splenomegaly, the spleen elaborating a toxin which destroys the red blood cells and eventually leads to cirrhosis of the liver. Splenectomy usually produces a cure if done before advanced cirrhosis develops. There is usually a long period of debility resulting from the anemia before the slowly progressive cirrhosis develops. Leukopenia is a constant feature. In these 2 cases the history is much more suggestive of cirrhosis developing from the start, and I seriously doubt the existence of Banti's disease. Anemia and leukopenia both occur in advanced cirrhosis of the liver. Hemochromatosis has been considered because of the bronzing of the skin associated with the cirrhosis in the case of the boy. It was thought first that this was a good possibility because of the positive skin test, but the biopsy of the skin showed only an increase in melanin content. These results indicate that the skin test is unreliable, probably because of the fact that the puncture of the skin itself may produce a small local hemorrhage with breakdown of red blood cells therein and the presence of enough hemosiderin to give a positive local test. Furthermore, there is no glycosuria, and hemochromatosis is very rare in siblings and youngsters at that. However, a few familial cases have been reported, and diabetes does not always occur.

The evidence points to the diagnosis of primary cirrhosis of the liver due to long continuous or often repeated exposure to some hepatotoxic agent of unknown nature but probably identical in the 2 cases. The cases are very unusual in that the patients are so young and are members of the same family. (Note: Regarding cirrhosis in children, S. S. Lichtman in his book, "Diseases of the Liver, Gallbladder and Bile Ducts," published in 1942 by Lea and Febiger, Philadelphia, states on page 435: "Jones (1907) collected 300 cases of various forms of cirrhosis in children from the European and American literature over a period of fifty years. Musser's (1899) series of 529 cases included Ghose's 400 cases of biliary cirrhosis occurring in infants in India. Children are usually affected by the same forms of cirrhosis as seen in adults and in the main react very much in the same manner. There may be one point of difference: children are more prone to suffer forms of cirrhosis which affect one or more members of the family. This may depend on hereditary factors such as syphilis or on influences favoring cirrhosis such as improper diet and alcohol as part of the family environment. A special feature of hepatic cirrhosis in children may also be infantilism (Poynton and Wyllie, 1926). The cirrhosis which accompanies Wilson's and Banti's disease are also relatively more common in children.

"Sutton reported the thirteenth American case of non-alcoholic primary atrophic cirrhosis of the liver in a child, aged ten. The onset with 'catarrhal jaundice' and large spider angiomas of the skin were emphasized. Hepatic cirrhosis in childhood has been reported by Weiss and Bettinger, Rosenbaum (1925), Oberhoff (1929), Petersen (1935) and Laurie."

Nowadays there is a growing tendency to attribute cirrhosis of the liver to faulty diet, possibly chronic vitamin B deficiency. However, it must not be forgotten that deficiency disease is often secondary to cirrhosis and may aggravate it. The girl showed evidence of deficiency disease 4 years ago when at Children's Hospital. The boy suffered an attack of jaundice 3 years ago, which speaks more for an infectious or toxic hepatitis.

The girl has only a moderate anemia, which argues against the diagnosis of splenic anemia. However, she does not yet present all the evidence of advanced cirrhosis, since both her bromsulfalein and hippuric acid synthesis tests are normal; but we must remember that these tests are positive only after there is destruction of 75 per cent of the liver. Both patients are dwarfed, a fact indicating that a serious chronic disease existed since early childhood.

The boy has only a short time to live. The girl, with good care, may live for years. In her case splenectomy must be considered, but if our assumption is correct that she has primary cirrhosis of the liver that procedure will not help her. I am inclined not to advise it. Splenectomy in a patient with portal cirrhosis may precipitate thrombosis of the portal vein, a serious complication.

February 4, 1943.

Dr. Yater: I shall ask Dr. Pasternak and Dr. Saccardi to report on the progress of R. de H. and M. de H.

Dr. Pasternak: The boy died on January 30, 1943. He became progressively weaker from the time he was presented at conference. Two days prior to death it was noted that there was more edema of the right leg than the left, and the right leg and thigh were red and warm. About 6 hours prior to death he suddenly became dyspneic and cyanotic. He was given plasma intravenously, and abdominal paracentesis was performed, 4,500 c.c. of hazy, yellowish-green fluid being obtained. However, cyanosis and dyspnea continued, and he died several hours later.

A summary of the necropsy is as follows: The body was that of a poorly developed, poorly nourished white male. The skin was yellowish-brown. The pleural cavities were remarkably small. There was about 100 c.c. of thin, bloody fluid in each hemithorax. The diaphragm was markedly elevated. Both lungs were practically airless. Cut section revealed a dark red, wet interior. There was no evidence of emboli or thrombi in the primary bronchial vessels. The peritoneal cavity contained about 12,000 c.c. of grayish-yellow, cloudy fluid. All peritoneal surfaces were thinly coated with fibrin. The liver was small, weighing 750 Gm. and was green, very firm, greatly distorted and nodular. It cut with increased resistance, the greenish-brown cut surfaces being markedly lobulated with much dense fibrous tissue surrounding small islands of liver parenchyma. An occasional island had the usual reddish-tan color of hepatic tissue. On microscopic examination the sections showed small islands of liver cells separated by a great amount of connective tissue. The cells of most of these islands contained much hemosiderin and were bile-stained. Fat vacuoles were also present and there was necrosis in the centers of many of the islands. Some of the cells had a normal appearance, but the cords of liver cells were arranged without any relation to central or portal vessels. There was marked proliferation of the bile ducts. The connective tissue showed much round-cell infiltration, but no deposition of hemosiderin. The spleen was enormous and weighed 780 Gm. It was slightly softer than usual. The cut surface was grayish-red with prominent trabeculae. Microscopic examination showed the sinusoids to be much engorged and the corpuscles few and small. The trabeculae were numerous. There was not diffuse fibrosis, but around a number of the larger trabecular vessels there were rather large areas of dense connective tissue, in which much hemosiderin was deposited. Sections stained with Mallory's stain failed to reveal diffuse fibrosis. The main anatomic diagnosis was Laënnec's cirrhosis of the liver with splenomegaly.

DR. YATER: The spleen is not that of Banti's disease. Therefore, since it is highly probable that the sister has the same disease, I doubt the wisdom of performing a splenectomy in her case.

A few words may be appropriate in connection with some of the laboratory examinations in the 2 cases. This boy had the usual severe macrocytic anemia that is found in the terminal stage of portal cirrhosis. This was masked on admission, undoubtedly because of hemoconcentration from dehydration. He had a very low serum albumin, another constant finding in such cases. The liver had something to do with the manufacture of plasma albumin, but it is not known just what. In both cases the blood cholesterol esters were not reduced, although the liver is the main site of esterification of cholesterol. One would expect the esters to be reduced in cases of cirrhosis, but they often are not. However, estimation of cholesterol and especially cholesterol esters is often of value in differentiating intrahepatic from early extrahepatic obstructive jaundice, since in the former the esters are often reduced or even absent, and in the latter they are often increased. Nevertheless, one must always guard against giving too much weight to the results of laboratory tests. Bedside observations still remain the most important.

DR. SACCARDI: The girl left the hospital at the time of her brother's death. A splenic biopsy was not done. Thorotrast hepatosplenograms showed marked enlargement of the spleen. Its lower pole was on a level with the left iliac crest. The liver was small and uniformly outlined by the dye. It did not present the typical picture of cirrhosis. From this study no definite evidence of any pathologic involvement is demonstrated.

DR. YATER: Unfortunately the one film made was not clear-cut. One might question the diagnosis of portal cirrhosis in the case of the girl because none of the tests was positive. However, she did have spider nevi which are practically pathognomonic of portal cirrhosis, and the similarity in many ways between her case and her brother's seems to be more than coincidental. Dr. Whitmore assures me that although there was hemosiderin in the parenchymal cells of the liver and more in the connective tissue of the spleen the hemosiderin indicated a hemolytic phase of the cirrhosis and in no way suggested hemochromatosis.

Editorials

FRED ROMAN SANDERSON, M.D., F.A.C.S.

Dr. Fred Roman Sanderson, 77th President of the Medical Society of the District of Columbia, is a native Washingtonian like his immediate predecessor. He was born in the Nation's Capital on June 5, 1893, the son of John W. and Alice Oulahan Sanderson. He attended elementary and high school in Washington, and received the degree of Doctor of Medicine from Georgetown University School of Medicine in 1915. Following a two-year internship at Emergency Hospital, he continued his postgraduate work at the Mayo Clinic, where he was a fellow and assistant in surgery from 1917 to 1922, receiving the degree of Master of Science in Surgery from the University of Minnesota in 1922. Immediately thereafter he entered the practice of general surgery in Washington where he has remained ever since.

Dr. Sanderson has for many years been looked upon as one of the ablest surgeons in this community. Aside from his extensive practice, he has devoted considerable time to teaching, having been on the faculty of the Georgetown University School of Medicine since 1923, first as Assistant Professor and later as Associate Professor of Clinical Surgery. Following the death of Dr. James A. Cahill in 1942, he became Chief of the Department of Surgery of Georgetown University Hospital and Medical School.

Dr. Sanderson became a Fellow of the American College of Surgeons in 1923 and an Active Member of the Medical Society of the District of Columbia the same year. He is also one of the Founders Group of the American Board of Surgery.

He was married in 1922 to Margaret Madden, of Rochester, Minnesota. They have four children, Margaret, wife of Ensign John Amussen of the Naval Air Corps, Mary Louise, Fred Roman, Jr., and Mary Ann.

Dr. Sanderson is a member of the Chevy Chase and Kenwood Country Clubs. He says that he has only one hobby and that is fox hunting.

Very few physicians are as popular with their colleagues as Dr. Sanderson. All who know him like him. He is a man of even disposition, considerate and conscientious in his work. In selecting Dr. Sanderson as its President for the ensuing year, the Society has chosen a man in whom the medical profession can well take pride because he is representative of the highest type of medical practitioner.

GENERAL RANKIN SPEAKS FRANKLY

Addresses of a non-scientific nature given by Presidents of the American Medical Association in ordinary years follow a pattern so similar that there is little to distinguish one from another. With few exceptions they are restatements of the Association's position in regard to proposed changes in medical practice and reviews of the progress which has been made.

But 1943 is no ordinary year. We are in the midst of a struggle for our very existence. There is no doubt in our minds that we will be victorious. It is equally certain that many adjustments will have to be made in our way of life in the years that follow the war. So in these critical days medicine needs wise and courageous leaders.

CAT.

FRED ROMAN SANDERSON, M.D., F.A.C.S.
President, The Medical Society of the District of Columbia, 1943–1944

Brigadier General Fred Rankin, retiring President of the American Medical Association, has proved himself just such a leader. In a memorable address before the House of Delegates in Chicago on June 7, he warned his colleagues that they must not only expect change but "must face realistically these tremendously forceful socioeconomic trends which are intimately involved and deeply concerned with the nation's medical problems." He emphasized the "prodigious tasks" which face the medical profession, completion of which "will demand not only sincerity of interest, integration of effort and clarity of thought but also active and close collaboration with appropriate governmental agencies."

There is no point in quoting further from the General's address in these columns as it is published in full in this issue of the MEDICAL ANNALS. Every member of the Society should read it in its entirety for it deals frankly with matters which have heretofore been discussed more or less privately among physicians. No medical leader to date has stated the issues confronting medicine with such honesty and candor as General Rankin.

Although General Rankin's address has appeared in the *Journal of the American Medical Association*, every state medical journal would do well to publish it. There are still too many physicians unaware of the serious problems with which the medical profession is faced.

Dr. James E. Paullin, now President of the American Medical Association, has been equally frank in his utterances. The Editors of the MEDICAL ANNALS plan to publish the address which he gave at the recent meeting in Chicago.

The *New York Times*, usually critical of the A. M. A., recently commented: "General Rankin and Dr. Paullin undoubtedly spoke for the rapidly growing liberal element in the Association."

The ANNALS has long urged the need of taking a more realistic view of what General Rankin calls "socioeconomic trends." It believes with him that a basis for "active and close collaboration with appropriate governmental agencies" must be found.

CAUDAL ANALGESIA PUBLICITY

The "de-Kruifian" style of recent lay publicity regarding continuous caudal analgesia in obstetrics deserves comment.

Following the work of Lemmon[1] and Lemmon and Paschal[2] on continuous spinal anesthesia, Hingson and Edwards[3,4,5,6] announced their method of administering continuous caudal analgesia in obstetrics, a notable contribution to the armamentarium for relieving pain in childbirth. The pioneer work of these two authors has been followed by articles by Gready and Hesseltine[7] in Chicago, Block and Rochberg[8] of Baltimore, and Adams, Lundy and Seldon[9] of Rochester, Minnesota; in addition, a method of administering caudal block anesthesia in obstetrics was described by Manalan[10] of Indianapolis, although the latter author did not employ the method for obstetric analgesia. McCormick[11] of Indianapolis commented on the method of Hingson and Edwards.

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[4] Hingson, R. A., and Edwards, W. B.: Anesth. & Analg., 1942, **21**, 301.

[5] Hingson, R. A., and Southworth, J. B.: Am. J. Surg., 1943, **58**, 93.

[6] Edwards, W. B., and Hingson, R. A.: J. A. M. A., 1943, **121**, 225.

[7] Gready, T. G., Jr., and Hesseltine, H. C.: J. A. M. A., 1943, **121**, 229.

[8] Block, N., and Rochberg, S.: Am. J. Obst. & Gynec., 1943, **45**, 645.

[9] Adams, R. C., Lundy, J. S., and Seldon, T. H.: J. A. M. A., 1943, **122**, 152.

[10] Manalan, S. A.: J. Indiana M. A., 1942, **35**, 564.

The method involves the use of a long, malleable needle (or ureteral catheter inserted through a needle[9]) for the transmission of a local anesthetic agent to the caudal canal epidurally, the hook-up remaining in place throughout labor so that small additions may be made from time to time as the injections begin to wear off. There have resulted a large proportion of cases in which highly satisfactory analgesia was obtained. However, contraindications have been noted: placenta previa, inertia uteri, hysterical or psychotic states, disproportion, difficult rotations and versions, hypersensitivity to local anesthetic agents, infective processes over the sacrum and sacral hiatus, and congenital or traumatic malpositions or configurations of the vertebral column, especially of the sacral segment. Complications do not often occur but those noted have been both minor and major: minor, such as no analgesia, unilateral analgesia, dizziness, drowsiness, diplopia, headache, severe postpartum backache, nausea, sensory paralysis above the nipple line for 24 hours, local trauma; major, such as breaking off needle or shearing off end of catheter, subarachnoid injection, intravenous injection, trauma to intraspinal nerves, profound circulatory collapse, respiratory paralysis, and infections including meningitis, epidural abscesses, cellulitis of back; apparently there was one death from infection. (Detailed technic is outlined in these references in the hope of avoiding most of these complications.) All articles stress the limitation of the method to well-equipped institutions ("because of the danger of complications"[7]) and also to administration by individuals "especially trained in its technic or in a realization of conditions which might contraindicate its use."[12] Dr. McCormick[11] stated: "It is predictable that the use of caudal analgesia as an obstetric relief will be limited eventually to selected cases conducted by extra-competent hands."

In spite of the hazards listed above, the lay press soon broke out with a rash of fair promise. *Time*[13] conservatively limited itself to the adjective "remarkable." We have no record of what was released to press and radio from the editorial offices of the *Journal of the American Medical Association*, but in a letter to the *Journal*, Paul M. Wood,[14] Secretary of the American Society of Anesthetists, refers to "comment by radio, magazine and newspaper reviewers." An editorial[15] in the *American Journal of Obstetrics and Gynecology* states, "It seems unfortunate that the recent wide newspaper publicity may lead to false hopes among pregnant women as to the practicability and safety. . . ."

The word "safe" began to appear, first in an editorial[12] in the *Journal* and then in rapid succession in *Your Life*,[16] *Hygeia*,[17] and *Readers Digest*.[18] The article in *Your Life* was relatively restrained, but *Hygeia* said "amazing," "amazingly effective," and cited testimonials of a patient and a patient's husband. *Readers Digest* quotations: "At last, the safe and painless method of childbirth has been found"; "Previous attempts to free women from pangs of childbirth have met with failure"; "The special . . . needle . . . will not break even if the patient rolls over or changes her position." In the latter part of all these articles appeared a paragraph regarding restrictions as to where and by whom the method should be administered; this appears in italics in *Readers Digest* and is there introduced with this patronizing remark:

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[11] McCormick, C. O.: Correspondence, J. A. M. A., 1943, 121, 700.

[12] Fishbein, M.: Editorial, Ibid., 1943, 121, 260.

[13] Time: September 14, 1942.

[14] Wood, P. M.: Correspondence, J. A. M. A., 1943, 121, 966.

[15] Editorial, Am. J. Obst. & Gynec., 1943, 45, 718; see also editorial, New York State J. Med., 1943, 43, 1019; Irving, F. R., Lippincott, C. A., and Meyer, F. C.: Ibid., 1943, 43, 1023.

[16] Fishbein, M.: Your Life, 1943, 12, 44.

[17] Fishbein, M.: Hygeia, 1943, 21, 175.

[18] Fishbein, M.: Reader's Digest, 1943, 42, 38.

"The method is still in what modern medical science likes to call an early experimental stage." Every woman regards the physician to whom she has entrusted herself for obstetrical care as the "expert" referred to in these articles. The number of women now demanding this new type of management reinforces the statement that this lay publicity has run far ahead of present knowledge and facilities.

While it is clear that the authors of the method had nothing to do with this lay publicity, and must have been considerably embarrassed by it, the administration of the United States Public Health Service appears to have given it its blessing, since a foreword from the Surgeon General was published with the article in *Readers Digest* and another[19] in the *Womans Home Companion.*

Below are quoted excerpts from comment appearing in the *Journal of the American Medical Association*[20] last September in regard to a different scientific subject but in a circumstance similar to the present, wherein Paul de Kruif was castigated for similar lay publicity activities. Mr. de Kruif may contemplate these quotations again in the light of the foregoing:

> "In the *Readers Digest* for September appears an article by Paul de Kruif entitled 'Found: A One Day Cure for Syphilis,' heralded by the editors of that periodical as 'the medical sensation of the year.' In the article Mr. de Kruif states that 'now there actually is promise of a one day cure.' He asserts without, of course, any basis in fact that 'the standard eighteen month course of treatment is too painful, too dangerous, too prolonged for the mass cure of early syphilis . . .'
>
> "As nearly as can be determined, all this effusion is based on a few paragraphs from an article on fever therapy by Drs. Walter M. Simpson, H. Worley Kendall and Donald Rose. . . .
>
> "In a review of syphilis to appear soon in the *Archives of Internal Medicine*, Drs. Frank W. Reynolds, Charles F. Mohr and Joseph Earle Moore of Baltimore will say:
>
> " 'With his usual uncritical judgment, hyperenthusiasm and willingness prematurely to capitalize journalistically on sober scientific experimentation, de Kruif has unhappily drawn nationwide attention to this "one day cure" for syphilis. This tendency of medical journalists to raise false hopes in lay minds can only be deplored. With all due respect to democratic freedom of speech, it is too bad that no censorship exists to compel conservative accuracy from medical sensationalists.'
>
> "This is another instance in which Mr. de Kruif has expanded preliminary medical investigations into announcements to the public that go far beyond anything that the available evidence could warrant. The *Journal* is being deluged with letters from physicians indicating that the article already is doing great harm in creating dissatisfaction among persons with syphilis as to time that may be required to bring about a cure. . . . It is unfortunate that . . . the statements of Mr. Paul de Kruif should have placed [Dr. Simpson] and his research in such an unenviable position before the medical profession."

Strange as it may seem, the foregoing quotations are from the editor of the *Journal of the American Medical Association.*

H. P. R.

NEW AUXILIARY PRESIDENT

MRS. FRED R. SANDERSON
President, Woman's Auxiliary to the Medical Society of the District of Columbia, 1943–1944

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[19] Ball, M.: Woman's Home Companion, 1943, 70, 16.

[20] Fishbein, M.: Editorial, J. A. M. A., 1942, 120, 48.

In and Out of Focus

BY THE OBSERVER

Why a Change? Although change is not synonymous with progress, it is stimulating. For several years this department of the MEDICAL ANNALS has been designated "Pertinent Paragraphs." No one has objected to the designation so far as is known, nor to the material used in connection with it. In fact, there have been favorable comments—quite a pleasing experience for the member of the Editorial Board responsible for it.

But now the said member has become weary of the department. He wants a change and he has a few ideas which may or may not be worth while. To begin with, many doctors have been woefully unaware of what is going on around them and the storm that is brewing. If they aren't aroused soon, they are due for a rude awakening.

Answers to the following questions should, to put it mildly, be of interest to every physician. What are the well informed doctors thinking about the future of medicine? What is in the minds of physicians in the armed forces? How do leaders in other fields—politics, industry, business and education—feel about medicine? What seems to be in store for the medical profession? What should they do about it?

It is true that much material on these subjects has already appeared in these columns. But it occurred to the aforementioned member of the Editorial Board, henceforth to be known as the Observer, that the subject matter could be presented more effectively if comments were made still more informal. And so having made this decision, it remains to be seen if the change is an improvement or whether it turns out to be the same column under another name.

"In and Out of Focus" will be a forum for many views, sound and otherwise. It will, it is hoped, also be informative. Activities of the Society will be referred to when circumstances seem to warrant.

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Would This Be Your Answer? Most doctors dread the experience of an appearance in the courtroom. They feel at a disadvantage and are especially reluctant to place themselves at the mercy of some clever and ruthless attorney. At some time or other, however, most physicians will find themselves in court, so it behooves them to be prepared.

Dr. Robert M. Kerr, of Jefferson Medical College, has written an essay entitled, "Is the Physician Prepared for His New Duty?," which appears in the June 12, 1943 issue of *Philadelphia Medicine.* He comments on the doctor's legal responsibilities as follows:

> "The ultimate goal of medicine has been the relief of pain and the restoration of health; the ultimate goal of law has been the assurance of justice and the protection of rights—'of people' and 'of things,' as Blackstone has stated it.
>
> "Thus medicine and law serve the individual to assure him of an opportunity equal to that of his fellowmen for the pursuit of happiness. When the problem of the individual is purely medical, the student of medicine is best equipped to solve it; when the problem is purely legal, the student of law is best equipped to solve it; but when the problem contains elements of both medicine and law, neither is equipped to solve it, because the medical student learns no law and the law student learns no medicine. This is the status of legal medicine.
>
> "A simple example will serve to illustrate the predicament of the physician who is drawn, in this case as an expert witness, into a legal proceeding.
>
> "It was the first time young Dr. Jones had ever been summoned to court and he was just a trifle flustered and uneasy as he took his seat on the witness stand. Confronting him was the cleverest, craftiest criminal lawyer

in the county. 'You are an expert in the art of medicine?'

" 'I've studied medicine and I am now practising general surgery,' the young doctor answered cautiously.

" 'Have you read Robertson's "Surgery of the Hand"?'

" 'No, I haven't. I used—.'

" 'Answer my questions only as I ask them. Have you read "Abdominal Surgery," by Cole?'

" 'No, I haven't read that either,' the young surgeon said, a little flushed.

" 'Jerome's "Surgery"?'

" 'No, I never heard of that one—or the others,' was the answer in an irritated voice.

"The lawyer seized his advantage: 'You claim to be a surgeon and come here as an expert witness, and yet you have never heard of any of these classics of surgery? Have you read "The Fundamentals of Surgery," by Shafer?'

"The young physician, very apparently embarrassed by an audible mumbling and tittering throughout the courtroom, hesitated, then said, 'Yes, I've read a little in that one.'

"The lawyer turned triumphantly to the jury: 'Gentlemen, as far as I know there has never been a book on "The Fundamentals of Surgery," by Shafer, or a "Surgery," by Jerome, or any of the others, yet this young man claims to have read one of these volumes! I ask you, gentlemen, can you accept as accurate and true any statement made by such a man? An expert witness must, above all else, be truthful, honest, etc. . . '

"And, just as an illustration of the unfamiliarity of lawyers with medical problems, there is the example of the young Blackstone who thought mastitis was a middle-ear infection.

"Even such examples as these show that in cases involving both medical and legal problems, the lawyer requires the assistance of the physician and the physician requires the assistance of the lawyer. The physician can explain the pathological and anatomical features of such cases and thus assist the court in reaching a decision based on the true scientific facts; the lawyer is able to question the physician so as to bring to light the accurate evidence that will substantiate his arguments. But who can advise the physician while he is on the witness stand? No one! He must know what he *may* say, what he *should* say, and what he *must* say before he approaches the stand.

"The physician may obtain this information in one or more of four ways. First he may consult a lawyer before appearing in court and thus obtain a general idea as to what questions might be asked and what answers would be expected. Second, he may read a book or treatise on medical jurisprudence and thus obtain a superficial understanding of the subject. Third, he may rely on 'horse sense' and experience to teach him what to say and what not to say, but a stable full of 'horse sense' is no substitute for knowledge and experience is a slow and often painful process of learning. Fourth, he may be fortunate enough to have had a thorough course in legal medicine; but few medical schools give an adequate course in this subject."

Dr. Kerr recommends that a separate course in legal medicine be offered in all medical schools, a recommendation in which your Observer concurs, and concludes:

> "Such a program would render the physician more capable of performing his new duty, that of furthering justice. Conscientious assumption of this new duty is not inconsistent with the fundamental purpose of the physician as well as the lawyer to assure the individual of an opportunity equal to that of his fellowmen to achieve happiness, the pursuit of which is the inherent right of all people."

★

Doctors in the Services Are Thinking

Letters received from Washington physicians in the armed forces disclose that plenty of discussion is going on among them regarding postwar medicine. Whether it is because they are away from home or because of the uncertainty of their existence, the fact remains that they seem more concerned about the future of medical practice than physicians on the home front. This deduction may not be true, but on the surface it appears to be. At any rate, our physicians in the services are doing some serious thinking and are making it plain that they expect us to take steps to meet the problems which loom ahead. For example, one member writes:

> "Perhaps you will be interested to know that in talking to medical officers from all over the states who are at present stationed in this theater these are the commonly asked questions and comments, 'Are we going to have socialized medicine after the war? Shall I try to get in the regular Army? Where can I get a postgraduate course after the war and who is going to pay for it and support my family? What is and what can my local society do to help me reëstablish myself after the war?

What is the A. M. A. doing about socialized medicine and why doesn't it present a plan that will at least gain public interest and be weighed in the balance with other national plans?' "

These questions are of vital concern to every doctor, whether he be in the military services or not. For if there is to be unity after the war, opportunities must be provided doctors now in the services to reëstablish themselves in civilian practice. Changes agreed upon in their absence must take into account their welfare.

That discussions of this nature are widespread is indicated by reports being received from all parts of the world where our physicians are stationed. The medical profession cannot ignore the questions now being raised. Action is called for now.

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Another Straw in the Wind

Elsewhere in this issue of the Medical Annals there appears an address by Brigadier General Fred W. Rankin, retiring President of the American Medical Association. As readers will learn, General Rankin is fully cognizant of existing threats to the present system of medical practice and fearlessly speaks his mind on the subject.

Along this same line Dr. R. J. Wilkinson, President of the West Virginia State Medical Association, in his presidential address on May 17, 1943, has this to say:

> "It is generally conceded that the American people are receiving the highest type of medical service the world has ever known; and I am sure those of you who have kept informed regarding the medical economic trends realize that the cost of medical care today, due largely to this increased efficiency, is beyond the reach of the average wage earner when he is faced with a catastrophic illness. The rich and the indigent are adequately cared for but a member of the low income group must make an enormous sacrifice if his loved ones are to receive proper hospitalization and medical care.
>
> "When faced with a promise of full coverage from the 'cradle to the grave,' or as the English humorist would say, from the 'womb to the tomb,' it is natural that he should subscribe to a program of governmental control and especially so since we have failed to offer relief or to point out the evils of government medicine. The medical care of our citizens, be they indigent, low income group or rich, is the responsibility of our profession, and some way must be devised to care for all of these people without government aid or interference. To accomplish this efficiently it will be necessary for the physicians to put aside petty jealousies and personal greed; we must agree upon a program that we can submit to the legislature, a program that has the unanimous support of the profession.
>
> "Some form of prepayment hospital and medical care offers the best protection to all parties concerned and is in keeping with our promise to the members of the last legislature. In this promise we obligated ourselves to study the problems incident to prepayment medical care and submit a sane, workable state plan for their consideration, since legislation will be necessary to protect the non-profit hospital and medical service plans from a tax that is now charged insurance companies."

In general this Observer agrees with Dr. Wilkinson but there is serious doubt in his mind that a satisfactory program is possible "without government aid or interference."

★

No Sinecure on the Home Front

It appears that some doctors in the armed forces look upon the physician at home as a "lucky dog." However, his existence is not all "beer and skittles." In fact, he has some pretty tough problems, what with rationing and shortages of gasoline, rationing of foods which affect his patients, shortages of drugs and medical supplies, a greatly increased practice, and demands for his services by Government agencies for which he receives no compensation. Dr. William Calvert Chaney has something to say on this score in the June number of the *Journal of the Tennessee State Medical Association*. Dr. Chaney, in an article entitled, "Medical Practice in Wartime," writes:

> "What are the duties of those physicians who want to do their part on the home front? The average medical man probably hasn't fully realized just what an important post of honor he occupies in this global war.
>
> "His first duty is to keep himself physically fit. When

a doctor is worn out, not only is he a ready prey for many diseases, notably pneumonia, but his judgment cannot be at its best in the treatment of his patients. Colonel Rowntree has said that the average physician is working seven days a week and a total of eighty hours! That is entirely too much work for anyone and especially for a doctor who is over the age of fifty. . .

"Second, the doctor should be willing to care for his share of the civilian population—1,500 civilians to be exact. The burden should rest evenly upon every physician's shoulders. If he is highly specialized, he should broaden out the scope of his work to include more cases. All should make night calls if they are necessary and not leave them to a few. No one likes to make them, but it is a service that the doctor owes the public.

"Third, it is the duty of the physician to familiarize himself with the recent advances made in both surgery and medicine. . .

"Fourth, he must know just what his duties are if there should be an air raid either with high explosives or with war gases sprayed from fast-moving planes. . .

"Fifth, the doctor must be on the alert for those diseases that probably have never been seen in his community before, but are brought to his very door by the rapid transportation of troops from the war zones. . .

"Sixth, the physician should feel responsible for the health of his community. He must, therefore, keep *out* all irregular practitioners who would prey upon the sick in times like these. . .

"Seventh, it is the physician's responsibility to guard zealously the future of the American way of practicing medicine. Those doctors who have left their homes and their practices to go into the Army or the Navy are making the real sacrifice and those who remain at home owe it to them to keep the practice of medicine on that high plane where it belongs.

"Eighth, the physician must remember those doctors who are in the armed forces and see to it that a place is ready for them when they return. . .

"The real attitude of the doctor at home should be and probably is: 'God speed our victory and the day when these men can come home and take some of this load off my shoulders.' "

Recent correspondence with doctors in the military services indicates that their attitude toward physicians at home has become more sympathetic. They are beginning to realize that many have not remained in civil practice from choice, and that practicing medicine on the home front in wartime is no sinecure.

An Enterprising Cabby

There is at least one Washington taxi driver who is not letting "the grass grow under his feet." When he learned of the recent action taken by the Office of Price Administration to insure a sufficient supply of gasoline for doctors, he prepared and distributed the following letter to his passengers.

"Recent Press reports indicate that Senator McCarran is under the impression that local doctors need lots of gasoline to visit their patients.

"That is a joke. Local M.D.'s do very little visiting. The patients must come to them—even when they have broken limbs. How do they do it? Very simple—by taxicabs.

"During my 33 years of cab driving—in this city—I estimate that cabs have done at least 98 per cent of the ambulance work here. If a patient is able to hobble or crawl, he uses a cab to get medical attention. That is because the cab is the lowest price ambulance in the world. Therefore, I say the cabs should get the gas the Doctors want. It is the cab which enables a majority of people to get to a Doctor. He—in most cases—won't come to them.

"Now, O. D. T. must find a way to give local cabs—and even those in nearby Md. and Va.—at least 10 gallons of gas every 24 hrs., or the drivers will have to quit and take other jobs until the gas shortage has been solved. Such a shut down in cab service will leave people who use cabs to obtain medical attention, to catch trains and planes etc., in a desperate plight."

Well, the doctors aren't the only ones who have gasoline troubles!

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15th Annual Scientific Assembly

Plans are going forward for the 15th ANNUAL SCIENTIFIC ASSEMBLY which is to be held at the Mayflower Hotel, September 30, October 1 and 2. The Chairman of the Subcommittee on Scientific and Public Health Exhibits reports that the success of the exhibits is assured as a sufficient number of organizations and institutions have informed him that they desire space. All space in the Technical Exhibit was contracted for some time ago.

(*Continued on page 285*)

REPORT OF DELEGATE TO THE AMERICAN MEDICAL ASSOCIATION

The 1943 session of the House of Delegates of the American Medical Association, held in Chicago, June 7, 8 and 9, was notable in several respects. The omission of the Scientific Assembly because of transportation limitations and the preoccupation of such a large number of medical men with war duties had the effect of an undistracted attention by the delegates to the business of the House. This resulted not only in the speedy transaction of business but in an observably increased awareness of the delegates of the nature and implications of the various matters under consideration and a more informed and decisive attitude in the disposition of them.

The addresses of the President, Brigadier General Fred W. Rankin, and of the President-elect, Dr. James E. Paullin, were particularly notable because they both boldly abandoned the intransigent tone toward impending socioeconomic changes in medical practice which has hitherto marked the pronouncements of A. M. A. leadership. The address of General Rankin in particular is commended to every member of the Medical Society of the District of Columbia for careful reading (see page 249 of this issue). It is a courageous and realistic statement of the tasks in medical statesmanship which lie immediately ahead.

Notable also was the fact that of the many official reports and resolutions from state organizations and Sections of the Scientific Assembly, none was of greater importance than the series of six resolutions from as many states having the same general purpose, namely, the creation of a new and more representative body for reflecting the views and sentiments of American medicine upon the general problem of the distribution of medical care and for a closer and improved relationship with the public and with the Government in particular in the discussions leading to decisions in this field.

The most direct and constructive proposal of the series was that presented in behalf of the delegates from the Minnesota State Medical Association. This advocated the creation of a Committee on Medical Service to be composed of officers of the A. M. A., a member of the Board of Trustees, and nine members representing nine regional sections of the United States and its Possessions (J. A. M. A., 1943, **122**, 545). The purposes and duties of the Committee were stated in the resolution and it contained a specific provision that the Committee maintain an office in Washington, D. C.

All of these cognate resolutions were referred to the Reference Committee on Legislation and Public Relations. The meeting of the Reference Committee, at which a hearing of those interested was held, was the most largely attended of any such gathering in the experience of your delegate. Discussion of the proposals was eager and general. Controversy developed over the maintenance of a Washington office rather than the creation of the proposed Committee on Medical Service. The report of the Reference Committee, as was anticipated, recommended for adoption none of the resolutions as submitted, but it did recommend the creation of a new Council surprisingly parallel in composition and purpose with the Minnesota plan. The report was unanimously adopted by the House.

The name of the new Council will be the Council on Medical Service and Public Relations. Its members shall be the President, the immediate past President, and the Secretary of the A. M. A., *ex officio;* one member of the Board of Trustees; and six members of the A. M. A., regionally distributed as to origin and, after the first year, to be elected by the House of Delegates from three nominees by the Board of Trustees for each vacancy. The term of elected members will be three years with staggered expiration dates.

The establishment of a Washington office was not mentioned in the Reference Committee's report, but there is reason to believe that the new Council will in fact eventually establish such an office.

Thus at last there appears to be official acceptance of the fact that the American medical profession has determined upon a change in the voice with which it speaks. The new Council, moreover, seems to have a clear mandate to join in the socioeconomic experiments of the people in the field of medicine as friendly participants rather than as mere antagonists.

Henry C. Macatee, M.D.
Delegate

President's Page

WE BEGIN ANOTHER WAR YEAR

Just as our private lives are being altered by the war, so the activities of the Medical Society are rapidly changing. The Society is concentrating more and more of its thought and effort these days upon problems related directly or indirectly to the war.

For example, there is the growing responsibility of physicians for the health of the people on the home front, and the increasing difficulty of providing medical service in the manner to which the public has become accustomed. Adequate measures must be taken to assure the civilian population of needed medical care, come what may.

Postwar health problems are today looming on the horizon. Our physicians in the services are depending upon us for constructive action. They have already made inquiries of our officers in regard to our future plans. What will we do to help them reëstablish themselves, they ask? They want to know also what steps we are taking to prevent the establishment of a system of Government medicine which will regiment the medical profession. And here it should be said they are not just "aginners." They seem, in fact, to be more liberal in their views than we at home.

Plans are already in the making for the postwar period and it is my hope that a constructive program will get under way this year. Several committees are charged with responsibility in this matter. There is the new Committee on Medical Service which is considering a health program for the protection of the civilian population during and after the war; the Committee on Medical Economics which is investigating the desirability of sponsoring some type of medical insurance; the Committee on Public Policy which will initiate such legislation as seems advisable; and the Committee on Public Health which will have recommendations to offer in the field of preventive medicine.

It will give me considerable satisfaction if our members can say at the end of this year that 1943–1944 was a year of worthwhile accomplishments.

Fred R. Sanderson

War Section

KIRK BECOMES SURGEON GENERAL OF THE ARMY

The United States Army has a new Surgeon General, Major General Norman Thomas Kirk, succeeding Major General James Carre Magee, who completed his four-year term in May.

General Kirk was born on January 3, 1888, at Rising Sun, Maryland. He was graduated from the University of Maryland in 1910 with the degree of Doctor of Medicine and commissioned a First Lieutenant in the Medical Reserve on May 29, 1912. On May 22, 1913, he was commissioned a First Lieutenant, Medical Corps, Regular Army.

He was promoted to Captain on June 7, 1916; to Major on May 15, 1917; to Lieutenant Colonel (temporary) on November 6, 1918; and on February 14, 1920, he reverted to his permanent rank of Major. He was promoted to Lieutenant Colonel on May 22, 1933; to Colonel on May 22, 1939; to Brigadier General (temporary) on March 12, 1943.

His first service was at the Soldiers' Home, Washington, D. C., in June 1912. The following September he enrolled in the Army Medical School, Washington, D. C., and following graduation, was stationed at Field Hospital No. 3, Texas City, Texas, from June 1913 to July 1915, when he was assigned to the Cantonment Hospital, 2nd Division, Galveston, Texas.

That same month he went to Fort Grant, Panama Canal Zone, for a brief tour of duty, after which he was transferred to Fort Sherman, Panama Canal Zone, in October 1915. He returned to the United States for duty at the Base Hospital, Brownsville, Texas, in July 1916.

In September 1917 he was assigned to Camp Greenleaf, Georgia, serving there until January 1919, when he was ordered to Walter Reed General Hospital, Washington, D. C., for Surgical Service. After brief tours of duty at the Johns Hopkins University Hospital, Baltimore, Maryland, and the Massachusetts General Hospital, Boston, Massachusetts, he was assigned to the Station Hospital, Fort Sam Houston, Texas, in October 1925, as Chief of the Orthopedic Section and Assistant Chief and Ward Officer, Surgical Service. He became Chief of Surgical Service in July 1927, and in February 1928 was transferred to the Sternberg General Hospital, Manila, Philippine Islands, as Chief of Surgical Service.

MAJOR GENERAL NORMAN THOMAS KIRK
Surgeon General of the United States Army

Returning to the United States in July 1930, he was assigned to Walter Reed General Hospital, Army Medical Center, Washington, D. C., as Chief of the Orthopedic Section. He entered the Medical Field Service School, Carlisle Barracks, Pennsylvania, in October 1931, and following his graduation from the Advanced Course, returned to his duties at the Walter Reed General Hospital.

He became Chief of Surgical Service at the Station Hospital, Fort Mills, Philippine Islands, in July 1934, and in February 1935 became Chief of the Surgical Service, Sternberg General Hospital, Philippine Islands.

Upon returning to the United States in July 1936, he became Chief of Surgical Service, Letterman General Hospital, San Francisco, California, serving in that capacity until January 1941, when he returned to Walter Reed General Hospital, Army Medical Center, Washington, D. C., as Chief of Surgical Service. In July 1942 he was named Commanding Officer, Percy Jones General Hospital at Battle Creek, Michigan.

Those in attendance at the annual meeting of the House of Delegates of the American Medical Association in Chicago in June were fortunate to hear General Kirk discuss the health of American troops in North Africa. The General speaks in the forthright manner one expects of a man who has served so long in the Army. He is not only considered able but is well liked by his associates, who predict for him a very successful tenure of the office of Surgeon General of the United States Army.

PROMOTIONS IN RANK REPORTED

Five members of the Society have been reported commissioned in the armed services since publication of the May issue of the Annals. They are Drs. Brooks G. Brown, Jr., Aloysius J. B. Connolly, Sydney Leventhal, James M. Loftus, Laurence C. Milstead, Charles P. Waite and Eugene L. Willard.

Reports of promotions in rank continue to come in. The following members of the Society have received such recognition, according to information which has reached the Editorial Board during the last two months:

William E. Bageant, from First Lieutenant to Captain
Robert A. Bier, from Major to Lieutenant Colonel
Allen S. Cross, from First Lieutenant to Captain
John F. Dominick, from Captain to Major
Edward J. Grass, from Captain to Major
Camp S. Huntington, from First Lieutenant to Captain
Raymond Maret, from Captain to Major
Ernest Michaelson, from Captain to Major
Henry A. Monat, from Lieutenant Commander to Commander
Paul R. Wilner, from Captain to Major
J. Rogers Young, from Captain to Major

LETTERS FROM PHYSICIANS IN THE SERVICES

As considerable interest has been shown in letters received by the Secretary of the Medical Society from Washington physicians in the military services, which have previously appeared in the Medical Annals, a number recently received are being published in this issue. Many of them contain significant comments on the future of medical practice.

The Secretary's "news letters" are being mailed approximately every sixty days, the last one going forward on June 2. It is impossible to type each communication separately so mimeographing has been found necessary. However, this has apparently not detracted from their interest.

The following are excerpts from letters which have been received:

From Colonel Daniel L. Borden, Commanding Officer, Station Hospital, Fort Eustis, Virginia:

Dear Ted: I am always inspired to answer your mimeographed letters sent to the various members of our Association. This has certainly been a splendid thought and I am sure it will do no end of good. Cementing our professional personnel is extremely important for we are facing difficult times ahead. With the infiltration of our Medical Schools with government subsidized men there is going to be added another link to the complex problems that we must face. Many of these young men who are entering into the study of medicine are individuals who, under normal circumstances, would have never thought of studying our learned profession. It is my understanding that the Army has been overwhelmed with applications for this course.

In the past, the average man studied medicine because of a real love and desire to practice medicine. I am not too sure about the present situation although I do feel that these men no doubt will make good doctors. Nevertheless, they will have a difficult government controlled background. In this way there will be ushered into our very ranks a strong [influence] that one day must be reckoned with.

Needless to say, I am concerned about the future but when all is said and done there is just one thing that I ask; no matter what comes we must, at all cost, maintain the high standards of medicine and never let that thought or effort drop from our program. I think the average doctor today is willing to concede almost anything provided this high standard can be maintained. We are, in our Army today, reaping the benefit of the ground that we have gained by maintaining this standard.

I find it pretty hot at Eustis and extremely humid. We are at sea level and the heat has been so great here the past three days that we have had to give up training in the afternoon. This cancelling of training has been brought about by many cases of heat exhaustion which have filtered into the hospital. The situation is so acute in this section of the country that we have had control teams ready to tackle the problem the minute a man is admitted to the hospital. Last year we had some fatalities from heat exhaustion and we are doing everything humanly possible this year to prevent a catastrophe of this sort. Our basic principle, today, is to treat heat exhaustion by preventive medicine. However, after a case has developed, we are treating them with all the facilities available including oxygen and plasma. To date our results have been excellent although we have had two or three desperately ill men.

All quiet and hot at Eustis.

From Lt. Comdr. John R. Cavanagh, U.S.N.A.B. Hosp. #3: Navy 212, c/o Fleet Post Office, San Francisco, California,

Dear Ted: Just received your second news bulletin dated April 2, 1943. It contained much interesting news, most of which I had previously seen in the ANNALS, which for some reason arrives here much more quickly as a rule than the regular mail. I regret very much that I will probably not be able to attend the 15th ANNUAL SCIENTIFIC ASSEMBLY but hope to make the 16th. . . . I will come fully prepared to give a talk on "ants." I had no idea that there were so many varieties and sizes.

I don't know whether I have mentioned to you previously or not but I think that every possible effort should be made to make the physician at home and the public in general very conscious of malaria. We have been fortunate in the past in having a low incidence of malaria and consequently a low incidence of mosquito infestation. The mosquitoes, though, have not been eliminated in the U. S. and I have an idea that mosquito control has waned somewhat with the falling incidence of malaria. Better start now working on the mosquitoes because a very high percentage of the men returning from combat areas all over the world are going to have parasites in their blood and will serve as a source of infection for all the anopheles. I hope everyone will become mosquito conscious.

Keep us informed either through your news letter or in the ANNALS in regard to the postwar planning of the Society. There is always a lot of discussion about this subject among the doctors out here and everyone is keenly interested in the future of medicine.

From Captain Michael P. DeVito, 128 Evacuation Hospital, A.P.O. 302, c/o Postmaster, New York, N. Y.:

Dear Mr. Wiprud: Your letter and circulars have been a link which could not have been replaced by any other means. We out in the field appreciate this news and it makes me look forward to each mail call. Thanks for your thought and may you continue the letters.

A little history about myself will enlighten you as to my actions thus far. Way back in August I left the States, arriving in England where we remained until it was time to do our part in the African campaign. Yes, we did just that, for we landed with our hospital, the first to do so. Since that date we have followed along because of our function and have been near the front to this day. Originally we were the 48th Surgical but later they changed our number to 128th Evacuation. Regardless of this our function has been the same and we have been through it all with our boys.

We have done well and are proud to have been of help to our gallant boys. . . . Our part is over now and we wait for what is next to come. Whatever that may be I know we will carry on for we are veterans and can do our part to end this next phase more quickly. Much more could be said but space will not allow. I have met Lt. Col. Morse, Captain Smith, and Captain Wheeler from Washington.

Carry on, and best wishes to everyone.

From Commander O. H. Fulcher, Navy 609, Fleet Post Office, San Francisco, California:

I have read and reread your letter of April 2 which has afforded me much pleasure. I am now in the Southwest Pacific area with a mobile base hospital. It is very stimulating to receive news of the Medical Society and of our fellow members. I enjoy receiving the ANNALS which arrives regularly. I would like to suggest that those of us in the armed forces should continue to pay the dues of ten dollars to the Medical Society if the organization could use the money to advantage. We, too, must think of the home front for we expect to return. We do not want the medical situation concerning doctors or patients to suffer for lack of funds.

I am sorry that some of our honored and beloved comrades have passed away. It makes one aware of the ever moving wheel of time.

I understand that you are becoming quite accustomed to rationing. I receive the "Star" which keeps me posted on local occurrences. Do any passengers get lost since the advent of women bus and taxi drivers?

From Major Henry B. Gwynn, Surgeon's Office, Hq. USA SOS APO 501, c/o Postmaster, San Francisco, California:

Dear Ted: I have just returned from a six thousand mile trip as medical consultant in this theater. Much of the time I was away from mail as well as civilization and that is why you haven't heard from me before. A few Washington doctors are in this theater but I don't believe I had better mention names. If your ears have burned at times it's because you haven't been forgotten by your friends here.

(*Continued on page 285*)

On The Home Front

The annual meeting of the **House of Delegates of the American Medical Association** was held in Chicago, June 7. **Dr. Henry C. Macatee** represented the Society in his official capacity as Delegate. **Dr. Herbert P. Ramsey** and **Theodore Wiprud**, Secretary of the Society, also attended the meetings.

Dr. James E. Paullin of Atlanta, Georgia, was installed as the President for 1943–44. **Dr. Herman L. Kretschmer** of Chicago, President-elect, will take office July 1, 1944.

The Distinguished Service Medal and Award for 1943 was conferred upon **Dr. Elliott Proctor Joslin** of Boston for his contributions to the knowledge of diabetes and for his lay educational work in this field.

Dr. Arthur Dean Bevan, internationally known surgeon, died June 11, 1943. He was President of the American Medical Association during 1917–18. In recognition of his services in this office he was made an officer of the French Legion of Honor. During the first World War he also served as Director General of Surgery in the office of the Surgeon General of the Army Gorgas. He was President of the Chicago Medical Society in 1898–99 and President of the American Surgical Association in 1932.

Dr. Bevan was born in Chicago, August 9, 1861. He received his degree in medicine from Rush Medical College in 1883. In 1907 he became head of the Department of Surgery of Rush Medical College, and for many years was professorial lecturer on surgery of the University of Chicago. He resided at Lake Forest, Ill., and maintained his office at 122 South Michigan Avenue, Chicago.

Dr. Roscoe Roy Spencer, of Bethesda, Md., will succeed **Dr. Carl Voegtlin** when he retires July 31 as Chief of the National Cancer Institute. Dr. Spencer has been serving as Assistant Chief of the Institute. He graduated from the University of Richmond in 1900 and a few months ago his Alma Mater conferred upon him the honorary degree of Doctor of Science. In 1930 he was awarded a gold medal by the American Medical Association for his Rocky Mountain spotted fever vaccine.

Dr. Voegtlin was honored at formal ceremonies June 7 by the National Advisory Cancer Council. Surgeon General Thomas Parran, Chairman ex officio of the Council, accepted for the Institute a portrait of Dr. Voegtlin, painted by Thomas Moore. Dr. Voegtlin has been with the United States Public Health Service since 1913. He was commissioned Pharmacologist Director in 1931 and has been in charge of all cancer research since September 30, 1937. He was the first Chief of the National Cancer Institute.

CALENDAR OF JUNE MEETINGS

June 4 Grievance Committee
June 22 Grievance Committee
June 24 Obstetrical Board
June 28 Executive Board

Dr. Oscar B. Hunter attended a meeting of the Executive Committee of the Council of the Southern Medical Association in New Orleans, May 27. The Committee laid plans for the annual meeting to be held this fall in Cincinnati, Ohio, November 16–18.

The Sixth Annual Camp for Diabetic Children will be conducted at the Christ Child Society Farm for Convalescent Children at Rockville, Md., during the month of August 1943.

Dr. W. Calhoun Stirling has been appointed by Secretary of the Navy Knox as Consultant to the Bureau of Medicine and Surgery of the Navy Department. Dr. Stirling is a veteran of World War I, which he entered as Lieutenant, rising to the rank of Major. He was stationed at Base Hospital 61 in France during the Meuse-Argonne drive, later being transferred to the Army of Occupation.

Mr. Paul D. Sleeper, General Agent of the Aetna Life Insurance Company, was elected President of the **District of Columbia Tuberculosis Association** by the Board of Directors, June 15, succeeding **Dr. J. Winthrop Peabody,** who will continue as a member of the Board. Mr. Sleeper was Chairman of the Christmas Seal sale in 1941 and 1942. **Dr. Irving Winik,** a new member of the Board, will serve the Association as Vice President.

Graduation exercises for the thirteenth class in **Tropical and Military Medicine** were held at the Army Medical School, June 19, in the Sternberg Auditorium. Brigadier General David N. W. Grant, Air Surgeon, addressed the class, which numbered 179.

Lt. Gerald H. McAteer, M.C., U.S.N.R., has been awarded the Silver Star Medal for "conspicuous gallantry and intrepidity in action during an aerial attack on Japanese naval units near Santa Cruz Islands on October 26, 1942" while serving as assistant medical officer on the aircraft carrier Hornet. Lieutenant McAteer graduated from Georgetown University School of Medicine in 1937, and subsequently served as resident physician at Georgetown Hospital. He is now a member of the medical staff of the Naval Academy at Annapolis.

The citation states that Lieutenant McAteer, "when severely injured and shocked by a nearby 500-pound bomb burst, refused medical attention and continued his duties in the care of the wounded, even though it was necessary for two men to support him as he moved about the ship. His courageous action was in line with the highest traditions of the naval service."

Doctors Hospital has just completed its campaign to raise $100,000 in War bonds and stamps for the purpose of dedicating a fighting plane in memory of the late **Lt. Henry R. Ringness, M.C., U.S.N.R.,** former resident physician, who was killed in action in the fighting on Guadalcanal, October 17, 1942. Dedication ceremonies took place June 28 in the Solarium of the Hospital. Mrs. Virginia Sutton Ringness, widow of Lieutenant Ringness and daughter of Rear Admiral D. G. Sutton, M.C., U.S.N., was presented a picture of the plane by the Treasury Department.

SOFIE AMALIE NORDHOFF-JUNG, M.D.
(1867–1943)

Dr. Sofie A. Nordhoff-Jung, a Life Member of the Medical Society of the District of Columbia, died June 6, 1943, at Georgetown Hospital. She had been in ill health for a number of years.

Dr. Nordhoff-Jung was born in Germany, April 24, 1867. She came to the United States as a young girl and graduated in medicine from Columbian University, now George Washington University School of Medicine, in 1893. She continued her education abroad, serving as resident physician in hospitals in Munich and Paris.

In 1914, at the outbreak of the first World War, Dr. Nordhoff-Jung went to Germany, where she served with the Red Cross and established a hospital in Munich, Bavaria, under American auspices. She kept the hospital open until shortly before the United States entered the war. In 1927 the German Government awarded her the official Cross of Honor of the German Red Cross in recognition of her wartime services.

Upon her return to the United States Dr. Nordhoff-Jung resumed active practice in the District of Columbia. She served on the staff of Georgetown University School of Medicine and at the time of her death was Professor Emeritus of Gynecology.

Dr. Nordhoff-Jung became an Active Member of the Medical Association of the District of Columbia in 1895 and of the Medical Society in 1896. Life Membership in the Society was conferred upon her January 1, 1936.

Her husband, Dr. Franz Jung, well known in Washington as a specialist in internal medicine, preceded her in death. She resided at 1868 Columbia Road, N.W.

LARKIN WHITE GLAZEBROOK, M.D.
(1867–1943)

Dr. Larkin White Glazebrook, an Associate Member of the Medical Society of the District of Columbia, died June 3, 1943, at his home, 2022 P Street, N.W., following a long illness. He had retired from active practice in 1928 to become a field representative of the National Commission on Evangelism of the Protestant Episcopal Church.

Dr. Glazebrook was born July 28, 1867, in Richmond, Virginia. He was a graduate of both the Columbia University College of Physicians and Surgeons and the Long Island College Hospital, receiving his degree in medicine in 1890. He was resident physician at St. Luke's Hospital, Bethlehem, Pa., and later attending physician at Emergency Hospital. He also served as physician for the Washington City Orphanage. From 1910 to 1927 he was chief medical officer for the old Washington Railway and Electric Company. After retiring from active practice he devoted his efforts to church and social service work, traveling widely on lecture tours.

Dr. Glazebrook became an Active Member of the Medical Association of the District of Columbia in 1893 and of the Medical Society in 1894. He continued his Active affiliation with the Medical Society until 1928, when he transferred to Associate membership. His great grandfather, Dr. Thomas Henderson, Assistant Surgeon, United States Army, was one of the incorporators of the Society under its first Charter. Dr. Glazebrook was a past grand officer of Alpha Tau Omega Fraternity; his father was one of the founders of this fraternity. He was a member of the Sons of the Revolution and the Metropolitan and Chevy Chase Clubs.

Surviving are his wife, Mrs. Jane T. Glazebrook, two sons, Lt. Col. Larkin White Glazebrook, Jr., U.S.A., and Robinson Cox Glazebrook of Beloit, Wisconsin, a daughter, Mrs. Virginia T. Carnduff of Washington, and four grandchildren.

(*Continued from page 259*)

the chlorine in the body. More recently phenobarbital has largely replaced bromides, because it does not have the untoward effects of the latter.

Every patient should be treated as an individual. The physician must exercise wisdom and tact and inspire courage and patience.

N. B. Denyl Capsules for clinical studies were furnished by the Premo Pharmaceutical Co., New York, to whom I wish to extend my thanks.

60 Plaza Street

(*Continued from page 277*)

According to the Chairman of the Subcommittee on Program, plans of his committee are far advanced. So it appears that members of the Society and physicians in the military services in this vicinity can look forward to an unusually fine ASSEMBLY this fall. The preliminary program will be out within a few weeks and will be mailed to all physicians in this area.

(*Continued from page 282*)

In the ANNALS (March issue) which has just arrived, an editorial paragraph states, "Physicians on the home front also have a great responsibility to those in military service. Apathy now toward developments in medicine is not keeping faith with the men who are in the armed forces." We in this area are particularly sensitive to medical-social change with the Labor Government in Australia making plans for some form of socialization of medicine perhaps even before the end of the war, and the great public reception of the Beveridge Plan both in England and here.

Perhaps you will be interested to know that in talking to medical officers from all over the states who are at present stationed in this theater these are the commonly asked questions and comments, "Are we going to have socialized medicine after the war? Shall I try to get in the Regular Army? Where can I get a postgraduate course after the war and who is going to pay for it and support my family? What is and what can my local society do to help me reëstablish myself after the war? What is the A. M. A. doing about socialized medicine and why doesn't it present a plan that will at least gain public interest and be weighed in the balance with other national plans?"

Perhaps a certain number of such comments can be ascribed to Army griping but I have tried to eliminate those which are purely destructive. I personally believe the above are fundamental and deserve an answer.

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MEDICAL ANNALS
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DISTRICT OF COLUMBIA

VOLUME XII · *August, 1943* NUMBER 8

PROGRESS OF MEDICINE DURING WAR

Part I*

LARRY B. McAFEE, M.D., F.A.C.S.
Brigadier General, Medical Department, United States Army

IT IS indeed an honor and a pleasure to appear on your program this evening with the distinguished representatives of the medical professions of our Allied Nations, England,, Russia and China, in a discussion of the subject "Progress of Medicine During War." I congratulate the President of the Society in having been so fortunate as to bring together for your last program of the season such outstanding medical men of three fighting nations, each representing a particular segment of the doctor's war activity, the military of Great Britain, the Red Cross of Russia, and the Public Health of China. With you, I am looking forward to what they have to tell us of their experiences in their respective spheres of activity.

Since you are all more or less familiar with the development of our own Army and its Medical Department, in the time allotted me I shall confine myself to a more general treatment of the subject along organizational lines and merely touch upon the outstanding developments in the professional field.

The expansion of the Army began a little over three years ago. At that time we had an active force of 165,000 men. We are now laboring toward a goal of 7,500,000 men by the end of the present calendar year. During this period the Medical Department has developed into an organization roughly three times the size of the whole Regular Army of 1938. It is so organized that it is now performing all the duties expected of a medical service from the induction of the enrollee to his assignment in the battleline. It is caring for the wounded soldier from the time he falls until final disposition of his case is made, be it return to duty or evacuation to the homeland and discharge from the Service. This same organization is prepared to expand to meet any increased volume of work that may be imposed by the constantly increasing number transported to theaters of operations and ultimate contact with our enemy.

In general, the development of our present Medical Department has followed plans based on experiences in former wars, especially World War I, as modified by the changing tactics and modern implements of war. Those plans have been a continuing study since reorganization of the Army after the last war and were a coördinated part of the general and specific mobilization plans of the War Department.

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* Read before the Society, May 12, 1943.

The Medical Service of our Army falls under two main divisions, a tactical mission and a service mission. This applies to the theaters of operations, as well as the Zone of the Interior. In the former the doctor is primarily concerned in camp and bivouac with the preservation of health through advice to his commanding officer on matters of personal hygiene and camp and environmental sanitation. He has his own medical organizations which he must train to perform their mission in combat, that is, the identification and initial care of the wounded, their evacuation through the battalion aid station to the rear of the regimental zone, thence by the elements of the medical battalion of the division, namely, the collecting station, via ambulance to the clearing station, through corps and army medical units to the evacuation hospital possibly sixty miles to the rear. At this installation the wounded receive their first definitive care. In advance of this point major surgery is only performed in an emergency, the primary consideration being to provide proper supportive care, treatment of shock, and the wise selection of the time and means of transport to assure arrival at the evacuation hospital in the best possible physical condition. Following operative procedure the casualty is evacuated on to the rear as early as possible to become a patient in a numbered general or station hospital. During this transfer from the front to the rear the wounded man has passed through Medical Department elements belonging in turn to the regiment, division, corps and army, all of which are tactical organizations operating mobile medical units. The station and general hospitals are more or less stable. They are by preference established in existing buildings and not intended to be moved unless the base of which they are a part is shifted to another location.

The importance of well-trained officers and men in the tactical units of the Army cannot be overemphasized, since the final outcome of treatment of the casualty, like any accident case, depends to an inestimable degree upon proper handling before coming to surgery.

As stated above, the fixed hospitals are found in the base sections of the Service of Supply of the theaters. They correspond to the general and station hospitals of the Zone of the Interior and are organized and staffed along similar lines. The character of service they render is comparable to that given in the homeland, and if the patient is evacuated by ship to the States it is for considerations other than better professional care. Here the character of injury, prognosis, and time of probable hospitalization beyond a period wherein it is economical to transport supplies to him are the determining factors as to his evacuation.

Within the United States the Army is divided into three principal components: Army Ground Forces, Army Air Forces, and Army Service Forces (until recently designated the Service of Supply). Each Force has its complementary medical troops. The Ground Forces, as the designation implies, is responsible for the organization and training of all combat troops operating on land, including the Medical Department organizations provided each echelon of command. The Air Forces is responsible for the organization and training of units of its Service, including the Medical Department assigned to accompany such air force units to theaters of operation. Additional medical troops operate station hospitals provided each air field.

The function of the Army Service Forces is service to the Ground and Air Forces. This service includes hospitalization of the sick and supervision of the organization and training of fixed hospitals mobilized for duty in the various theaters of operation. This responsibility is administered through the nine Service Commands under the direction of the Commanding General of the Army Service Forces.

At the present time there are 34 named general hospitals and a station hospital for each camp or post caring for the sick and injured of the military population within the United States and casualties from overseas theaters. The amount of hospitalization required is determined upon a percentage basis established through experience and is increased as the military census grows through the process of induction.

The Surgeon General is the adviser to the War Department on all matters affecting the health of troops and in the discharge of this responsibility recommends the policies under which the Medical Department shall operate in the different components of the Army. With the expansion of the Army the various activities of his office have greatly expanded and multiplied. Time does not permit of a review of all of them. However, I wish to mention some which are of professional interest.

Upon the declaration of war the Professional Consultants Division was brought into being. It now includes Chief Consultants in Medicine, Surgery and Neuropsychiatry, with part-time consultants in some related specialties. Initially, these consultants visited all the larger station hospitals and general hospitals. As the Medical Service enlarged, consultant staffs were added to the Medical Branches of the Service Commands and as theaters developed beyond our shores consultants were assigned to the office of their chief surgeon. The service being rendered by these outstanding professional men through inspection and consultation with local hospital staffs has aided materially in effecting early organization and teamwork of functioning staffs and the training of units mobilized for overseas duty. Through their efforts and knowledge of the personnel of their respective specialties they have given most valuable advice in the development of balanced professional staffs and the establishment of standards of treatment. Their interest and ability as instructors has stimulated local staffs in the role of clinical demonstrators, which has been most helpful to the junior members of the organization both professionally and as a morale factor.

The Preventive Medicine Division underwent early expansion during the prewar training period. With mobilization came the problems of immunization and sanitation, both within the cantonment and outside the cantonment. The ever-present scourge of social diseases had manifested itself during early maneuvers in 1939 and gave some indication of the problems to come. The influenza epidemic and its complications of World War I were kept constantly in mind, as well as the necessity for early recognition and control of other communicable diseases. When it became apparent troops would move out of the country as task forces in locations reaching from the Arctic Circle to the Equator, sanitary surveys of proposed camp sites were undertaken as a basis for planning disease prevention. Before Pearl Harbor a civilian organization composed of the leading epidemiologists of the country, experts in each of the communicable diseases and representing every section of the Nation, was brought into being. Primarily this Board was established to study the factors involved in an influenza epidemic and to recommend drastic action for its suppression should it occur. Actually, it has rendered prompt and highly efficient service in the control and suppression of any communicable disease that has appeared. It has made important studies of acute respiratory diseases, cross infections in hospitals, coccidioidomycosis in California, streptococcic sore throats, atypical pneumonia, neurotropic virus diseases, and the control of meningitis.

With the disposition of our troops throughout the world surrounded by the worst possible sanitary conditions the threat of all the so-called tropical diseases is ever present. Because of the distances, the tonnage involved, the necessity for the most economic use of water transportation and the frequent change of location of our fighting forces, it is impracticable to inaugurate the usual and more permanent sanitary measures practised in the States. Among these diseases, malaria, typhus fever and yellow fever are probably the greatest hazards. While the last two are subject to artificial immunization control to an unknown degree, their prevention is fortified by the destruction of their respective vectors. In the case of malaria, however, we must rely upon the best protection feasible against the Anopheles, supported by the repressive action of quinine or atabrine, and be content that incapacitating symptoms are held at bay until the soldiers' combat mission has been completed.

Through the efforts of the Preventive Medicine Division louse and mosquito destruction are now possible in remote areas where drainage and oiling are impracticable in the extermination of the mosquito and disinfectors employing steam are not available for delousing.

Experience has demonstrated that if in addition to the protection against mosquitoes after sundown afforded by clothing, gloves, head nets, bed nets, and repellents, actual destruction of the vector can be accomplished in sleeping quarters, infection can be avoided or minimized. The spray-gun was not satisfactory. In its stead a bomb-like container has been developed for pyrethrum suspended in the commercial product called "freon." The freon is placed in the cylinder under pressure and when released through a small aperture it immediately assumes a gaseous state and carries the pyrethrum with it. Because of its rapid spread and penetration small amounts are consumed in disinfecting large areas. Instructions provide that the gas be used for from 3 to 4 seconds in a shelter tent and 10 to 12 seconds in a pyramidal tent both before retiring and on arising in the morning. This method of applying pyrethrum has proven very effective in Africa as a protection against the insect as well as an aid in mosquito collection for survey purposes.

Insect repellents that are applied to the exposed skin have been developed that also give protection against mosquitoes and other biting insects for a period of 3 to 4 hours. These are especially useful to the jungle fighter.

The disinfestation of the soldier's clothing has never been satisfactory with the use of steam. Woolens are shrunk and leather is damaged. A fumigation method has been developed with the use of methyl bromide which is destructive to the louse and its eggs. A small can of this chemical is sufficient to disinfest the clothing of 50 men in 30 minutes. A small blower to circulate the gas and a plywood cabinet are the only equipment required. Ampules of the chemical are available for the disinfestation of an individual's clothing and equipment. Any fairly tight container will suffice as a chamber, usually a G.I. can.

A more recent method of louse control has been developed in the form of a powder which when applied to the seams of a garment will kill the louse and its eggs and continue to do so for a period of 10 days to 2 weeks. This powder has been tested experimentally in Mexico and North Africa and has given promise of effectiveness. It has the advantage of continued protection against reinfestation by migration over a prolonged period and if generally used would eliminate the vector in any particular area.

The new developments I have touched upon refer to preventive measures. As we become more involved in front-line operations, no doubt opportunities to exercise our ingenuity in meeting new problems will arise, and this war, like wars in the past, will furnish a medium through which we will advance our knowledge in the care of the sick and wounded.

We are constantly reminded that due to modern means of communication and transportation the world is a much smaller place than it used to be. This is true if we consider the conquest of time and space. However, I am convinced that through the application of modern science and the release of vast areas of this globe from the hazards of disease, the world will actually be enlarged. We will establish new frontiers where civilized peoples may live and prosper in the security of the four freedoms. This, I prophesy, will be the doctor's contribution to posterity as a result of his World War II experience.

PROGRESS OF MEDICINE DURING WAR

Part II*

PROFESSOR VLADIMIR LEBEDENKO
Representative of the Mission of the Red Cross and Red Crescent Societies of the U.S.S.R. in the U.S.A.

IT WAS requested that I limit my remarks to 15 minutes. As you yourselves see, the problem which you have on your agenda is a very large one, and, therefore, my talk will concern itself with the mere presentation of certain results obtained from experiences of the present war. As we say in Russian, "One does not embrace the unembraceable"; in other words, in the short time allotted me I can give but few details.

Before I deliver my message, I feel I must stop and point out one outstanding fact to which everyone present at this meeting bears witness. Here for the first time on the territory of this most hospitable land, the United States of America, are gathered the representatives of the medical profession of four great nations, the United States, Great Britain, China and the U.S.S.R., nations which are united in a common thought, in a common ideal, in a common desire to achieve the victory of good over evil and the triumph of Democracy over the arch enemy, German Fascism, and the satellites of German Fascism.

The tests and trials which lie before us are many and difficult, and it rests upon the physicians of our many lands to resolve problems of the greatest magnitude and complexity. The solution to these problems must be found in as short a time as possible, and all the positive results must be immediately introduced into medical practice. We are as sure of the fact that these problems will be solved as we are certain of the fact that victory will be ours.

Allow me in the name of the doctors of the Soviet Union to extend my warmest and heartiest greetings to all of you gathered here today, and to wish you success worthy of those who so brilliantly and heroically stand guard in the battle for the triumph of peace, freedom and democracy.

War is a test of people on one hand and of science on the other. It is well known to those present that over 70 per cent of Red Army wounded returned to active combat duty. This single fact strongly highlights the outstanding medical achievements of the Soviet Union. In medicine, particularly in time of war, the determining factors of successful medical treatment are:

1. Assistance rendered by first aid
2. Sorting and classifying casualties
3. Evacuation and
4. Transportation
5. Proper sequence of treatment from the battlefield through intermediate field points up to and including base hospitalization.

We have altered somewhat the axiomatic character of the sequence of battlefield surgery, namely, that the first aid rendered decides the fate of the wounded and that the first surgical operation is of critical importance in the progress of the wound. To this we must add the second phase, the restoration of normal physical functions to the point of capacity for active combat duty in the shortest possible time. This is completed by the medical units of the Red Army at base hospitals.

The character of the present war is vastly different from World War I. If we consider the first World War to have been one of positional warfare, then we can well state that the present war is a war of maneuvers and is, therefore, endowed with its own particular features. Of these the most outstanding is the fact that the disposition of military units very often assures a checkerboard arrangement, thus creating countless situations whereby military actions are carried out in the direct rear of the enemy. This situation also leads to much greater possibilities of encirclement and entrapment. Hence the problem of administering first aid to the wounded becomes very varied and complicated. The duty of the doctor is to handle the medical, hygienic and tactical questions which arise, and to quickly orientate himself to any given situation. And at the same time he must thoroughly ground himself in military field surgery. The first treatment of a wound at present is not considered merely a matter of drainage and subsequent suture but includes general hemostasis, débridement with the removal of necrotic tissue, prompt counter measures against shock, the use of bacteriostatic, chemical and biologic media, in particular, sulfonamide drugs, vaccines and bacteriophages, and proper immobilization. Available data show that more than 90 per cent of the wounded receive medical assistance at the front. From 5 to 10 per cent of the wounded slip through the first aid stations and are treated somewhere else along the lines. This very first stage of treatment is the critical determining factor in the subsequent healing process of the wound. Of course, I must point out that this is not the only factor responsible for the large percentage of wounded soldiers returned to duty at the active front.

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* Read before the Society, May 12, 1943.

An entire series of basic surgical measures, if applied correctly and in time, appreciably lower the percentage of mortality and disability. For example, lung wounds previously resulted in a 40 per cent mortality, regardless of the fact that the open pneumothorax was closed in sufficient time. By putting into practice the suggestions of our Academic Burdenko and blocking off the vagus, the percentage of mortality was decreased by almost 50 per cent. Further, this particular category of wounded on reaching the rear often suffer from complications in the form of pleurisy. These have been afforded great relief by the treatment known as the Vyshnevsky System. This system reduced mortality from 12 to 2 per cent.

In the first World War, hip wounds accompanied by compound fracture of the thigh bone resulted in a 20 to 40 per cent mortality. With the perfection of the methods of blood transfusion, the introduction into general practice of modern methods of wound treatments and the use of sulfonamide drugs have favorably reflected on the final results of healing in this particular type of injury.

We must consider the widespread use of plaster casts in practical surgery as a signal achievement. However, this method, like any other, must be used properly. We must know when and how to use it, and what is most important, we must know when not to use it.

The judicious combination of sulfonamide drugs, plaster casts and skillful surgery all contribute to successful military field surgery. This modern combination of technic may well be considered a new epoch in surgery in general.

I cannot here dwell on details of treatment, but I would like to point out the basic fact that in any war the victor is that side which enjoys the greatest number of reserves, particularly human reserves. We doctors of the United Nations must be responsible for making possible the maximum concentration of these reserves. Each of us has and is gaining valuable additional experience in the treatment of injuries. We must exchange these experiences. Their timely and capable utilization by all of us will earn the warmest praise and gratitude of all our peoples.

CONTINUOUS CAUDAL ANESTHESIA IN ONE HUNDRED UNSELECTED OBSTETRICAL CASES

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THE introduction of continuous caudal anesthesia in obstetrics by Hingson and Edwards[1] has opened up a new field for the relief of pain during labor and delivery. Unfortunately, this new method was published in various magazines and newspapers throughout the country before the majority of obstetricians could see it demonstrated, try it, and evaluate it. The lay public was given to understand that "having a baby" now was no more trouble than going to a tea party, and consequently many maternity patients were inquiring about, and some even demanding, this new method of painless childbirth.

Had caudal anesthesia come from the medical profession to the doctor and then to the patient, rather than from the lay press to the public and then to the doctor, many men doing obstetrics would not have taken an antagonistic attitude toward this procedure but would have tried and evaluated it for themselves, and then would have included it as part of their armamentarium.

During the past 12 weeks we have done 100 unselected cases under caudal anesthesia in the obstetrical department at Providence Hospital. Although this number is not large, we feel as though other obstetricians who may wish to use this method may benefit by our observations and results.

RESULTS

Our results are given in the following tables:

	No. of cases	*Percentage*
Perfect results	67	67
Partial results	17	17
Failures	16	16
	100	100

67 perfect result cases	
Primiparas	43
Multiparas	24
	67

Obstetrical positions	*No. of cases*
L.O.A.	45
R.O.A.	17
R.O.P.	3
L.O.P.	1
Breech	1
	67

Types of delivery	*No. of cases*
Normal	21
Low forceps	40
Mid-forceps	4
Version	1
Breech extraction	1
	67

Largest amount of solution used—448 c.c.
16 hours, 10 minutes
Smallest amount of solution used—30 c.c.
25 minutes

17 fair result cases:			
Primiparas	14	Delivered without supplementary anesthesia	8
Multiparas	3	Delivered with supplementary anesthesia	9
		(one of latter was cesarian)	

By perfect results we mean that complete analgesia was obtained within 15 minutes from the time of the first injection, and the patient was carried through the remainder of her labor, delivery and third stage absolutely free of pain.

By partial results we mean that relief from pain was obtained for some hours during the labor, but that the patient began feeling her contractions before its termination. When this did occur, it usually happened when the cervix was completely dilated and was more common in posterior positions. However, in 50 per cent of these cases delivery was effected without supplementary anesthesia.

By failures we mean that no analgesia was obtained. We can dismiss this group very readily by saying that the needle was not in the caudal canal. The majority of these cases constituted our early efforts.

In all of the 100 cases there was no maternal mortality and no accidents. Two of the babies were stillbirths; one had a prolapsed cord that was not pulsating at the time of delivery; the other fetus died in utero several days before labor started, as evidenced by absence of fetal movements and heart sounds. Neither of these cases could be attributed to the anesthetic.

Two of our good result cases ran fevers that were traceable to other infected patients on the floor. There were 5 infections there at one time, and the other 3 were not delivered under caudal anesthesia.

There were 4 toxic cases delivered under caudal anesthesia, 2 of these with systolic blood pressures over 200. They all delivered in good condition. One of the cases had a convulsion 10 hours postpartum, again not attributable to the anesthetic.

METHOD

The method consists of continuous extradural nerve block with 1½ per cent solution of metycaine in normal saline by using the approach of the sacral hiatus to the peridural space. A special apparatus has been developed which permits the fractional administration of the anesthetic solution according to the needs of the patient.

With continuous caudal anesthesia the drug producing the nerve block is constantly bathing the trunks of the sacral and lumbar plexuses within the peridural space. At no time does the drug enter the subarachnoid space of the spinal canal.

The sacral canal terminates below in the hiatus sacralis, forming a triangular opening, the sides of which are marked by the bony ridges, known as the sacral cornua. This opening varies in size in different individuals. It may be abnormally large, owing to a deficiency in one or more of the vertebral arches, or it may be reduced to the extent of complete obliteration by ossification.

It has been established that the uterus derives its extrinsic nerve supply from three sources; that is, the motor fibers to the uterus are derived from the sympathetic nerves of the aortic plexus reinforced by fibers from the solar, renal and genital ganglia; the sensory fibers are derived from the sympathetic nerves and ganglia of the eleventh and twelfth dorsal spinal segments; and the sensory fibers to the cervix and also to the birth canal are found in the parasympathetic plexus of the sacral nerves. The perineum receives its nerve supply from the lower divisions of the somatic sacral nerves. Thus, a peridural injection through the sacral hiatus of 30 c.c. blocks all of the sensory fibers to the uterus and birth canal; but the motor fibers sending impulses from higher levels are untouched. Clinically when there is analgesia of the skin over the distribution of the ilioinguinal nerve (receiving components as high as the twelfth dorsal segment), there is always complete absence of all labor pains. Usually the initial dose of 30 c.c. of 1.5 per cent metycaine produced this analgesia. Unless the anesthetic solution ascends this high in the peridural space the parturient experiences discomfort.

The administration of the analgesic agent is performed with the patient on her side in the knee-elbow position for the insertion of the caudal needle through the sacrococcygeal ligament. The hiatus is identified as a V-shaped notch by deep palpation over the sacral cornua. This is usually about 2 inches from the inferior caudal tip of the coccyx.

The skin and deeper tissues over the hiatus are infiltrated with the anesthetic solution. We use a 2-c.c. syringe with a small hypodermic needle to raise a skin wheal, then a longer needle to infiltrate the deeper tissues.

A special, malleable, stainless steel, 19-gauge caudal needle (B.D.) is then inserted through the skin wheal at about a 45-degree angle with the skin. The needle passes through the subcutaneous tissue and the sacrococcygeal ligament, and at this point the head of the needle is then depressed and its point diverted upward exactly in the midline following the axis of the canal for a distance of about 1½ inches. The needle is always inserted to the hub. They are made in assorted sizes of 2½, 3, and 3½ inches to accommodate variations in the amount of adipose tissue over the sacral hiatus. We generally use a 3-inch needle.

The needle is inserted to the hub because we are then assured that during the course of labor the needle cannot gradually move higher with the patient's movements and contractions and so accidentally enter the spinal canal. We believe this to be an important step, and we have never attempted caudal anesthesia with the needle only partially inserted.

When the needle is in position, the stylet is withdrawn. If cerebrospinal fluid appears or can be aspirated, the needle is withdrawn. No further attempt is made to reinsert the needle, and the case is considered unsuitable for this type of anesthetic. If blood escapes through the needle, a venous sinusoid or vein has been entered, and the position of the needle must be changed until no blood can be aspirated to avoid intravenous injection of the drug. With the needle in the sacral canal there is practically no obstruction to the flow of fluid from the syringe. If it lies superficial to the sacrum, considerable resistance is encountered and a subcutaneous bulging develops over the site of the injection.

It would be fatal to inject a large amount of this solution intradurally, and we have carefully observed these three precautions to be sure we are not in the spinal canal:

1. No spinal fluid should appear after removing the stylet from the special malleable needle.
2. No fluid should be aspirated from the needle.
3. There should be no anesthesia of the lower extremities after an initial injection of 5 c.c. and a 5-minute observation period.

When satisfied we are not in the spinal canal we then inject 25 c.c.

The patient may have small servings of food and fluid throughout the course of labor. They have relatively free movement of their legs. They are encouraged to remain quietly on their side.

The following are the usual physical signs observed after the initial injection of 30 c.c. of 1½ per cent metycaine solution if the needle is correctly placed in the caudal canal:

1. Within 5 to 10 seconds after the injection the patient complains of rather severe hip or leg pain due to the pressure of the solution on the sciatic nerve. This pain lasts only about 15 seconds and subsides.
2. In about 5 minutes there is anesthesia around the coccyx shown by the fact that the patient does not feel a needle prick in this area.
3. In the next 5 minutes this anesthesia gradually spreads down over the perineum and then laterally to the gluteal regions and down the legs. The rectal sphincter is relaxed and the anus gapes open when the buttocks are separated.
4. At the end of 15 minutes both feet of the patient are found to be quite warm to the touch due to nerve blocking by the anesthetic solution of the sympathetic vasoconstrictor fibers.
5. Finally, at the end of 20 minutes the patient should be completely relieved of all discomfort and resting quietly and free from pain. The patient is having regular contractions.

In a recent article in the *Journal of the American Medical Association* Siever and Mousel[2] report on 300 unselected cases done under caudal anesthesia. They claim that 288 of their cases were satisfactory, and that in 12 supplementary anesthesia was necessary. This gives them 96 per cent good results. This article gave us the impression that they were able to get into the caudal canal in all 300 of their cases. We were unable to do this.

Selection of Cases

Caudal anesthesia is not suitable for all maternity cases, including the following groups:

(a) In the obese individual whose weight is around 190 to 200 pounds it is very hard to palpate the sacral hiatus and hence insert the needle correctly.

(b) The nervous and hysterical patient does not take a good caudal anesthetic. Even though the anesthetic is perfect, they usually find something else to complain about, and this type of individual is better off asleep during delivery.

(c) The multigravida who has had 5 or 6 previous deliveries, once her pains become productive and the caudal anesthetic is ready to start, will frequently be completely dilated before the anesthesia has taken effect.

(d) Any patient with an anomaly of the sacrum, infection about the sacrum, or an old back injury whose sacral hiatus is hard to locate is not a good subject.

We have noticed that many caudal canals are anywhere from 1 to 2 cm. off the mid-line, but this does not affect the anesthetic if this fact is recognized and the needle introduced into the canal, regardless of its location. Practically all of the caudal canals, when off center, were toward the patient's right.

Contraindications

Placenta previa, premature separation, and contracted pelvis are given as contraindications to caudal anesthesia. We would add to this list previous cesarian section, in which case the patient is allowed to have a trial labor. If the old scar ruptures, this fact may not be recognized immediately, and the patient may go into profound shock.

Time to Start Anesthetic

In the multipara we can start the caudal anesthesia as soon as she is in active labor, regardless of the condition of the cervix.

In the primipara it is well to wait until the cervix is about 3 to 4 cm. dilated and the patient is beginning to become uncomfortable with her contractions, which at that time come at about 5-minute intervals. We do not start the injection too soon in primiparas.

To us, analgesia with continuous caudal has a definite advantage over any of the other analgesics, whether they be morphine hypodermically, any of the barbiturates orally, or paraldehyde or ether and oil by rectum. The caudally anesthetized patient is wide awake, has complete control of her faculties, is coöperative, and is able to take nourishment and fluids. Patients under sedation heavy enough to relieve pain have lost control of their faculties, are uncoöperative, are unable to take fluids, and become dehydrated after many hours of labor. Also, the inherent dangers of the general anesthetic used at the time of delivery are obviated. These dangers are significant and account for a fair proportion of maternal mortality and morbidity (e.g., aspiration, pneumonitis, atelectasis, etc.).

After the initial caudal injection is made, the patient requires very little of the nurse's time, whereas the heavily sedated patient must be watched constantly.

The infant also benefits by caudal anesthesia, as there is less trauma to the head because of the marked relaxation of the soft tissues of the birth canal. This is of advantage in premature babies, since there are no hypnotics, analgesics, or inhalation anesthesia employed. The infant is not born narcotized; it cries readily and lustily, and rarely needs resuscitation.

Observations

Caudal anesthesia tends to shorten labor in both the first and second stages. This is particularly true when one is dealing with a long, hard, resistant cervix that will not dilate readily. The uterine contractions are not interfered with in any way, and yet the marked softening of the cervix and pelvic floor muscles offer less resistance to the presenting part, and consequently labor is shortened. However, once the caput reaches the introitus it may remain there for some time unless labor is terminated by low forceps or unless the patient is asked to bear down with her contractions. Multiparas can be delivered by this latter procedure, but primiparas almost always have to have their labor terminated.

Posterior positions tend to come down as complete posteriors or to rotate into transverse arrests and remain there. This is explained by the fact that the marked relaxation of the soft tissues interferes with the flexion of the head and subsequently with its internal rotation. This is, however, compensated by the fact that rotation of the head and the application of forceps are made easier.

We have noticed that we can control the first stage of labor in most patients by injecting 20 c.c. of the solution every 45 minutes, but as the cervix becomes completely dilated it is necessary to give the same amount as often as every 30 minutes.

We have also noticed that in posterior positions, when the head descends through the pelvis, they complain of severe back pain which cannot be relieved by the caudal anesthetic, and yet these same patients can be delivered with forceps and have an episiotomy repair with no supplementary anesthesia.

We have had no cases of eclampsia in which to use caudal anesthesia, but one of the recent articles reports excellent results in 3 cases. They noted a drop in blood pressure, control of convulsions, and a more normal labor and delivery.

The third stage of labor may be handled the same as always. We usually give intravenous ergotrate before the placenta separates. The uterus contracts well and remains firm, and the placenta separates readily and may be expelled by gentle pressure on the fundus. The blood loss is considerably less than under inhalation anesthesia, usually about 50 to 100 c.c.

After 3 to 4 hours under anesthesia the patient should be catheterized, since the bladder invariably fills up due to the blocking out of the micturition reflex. A full bladder is a cause of soft tissue dystocia and frequently holds up the descent of the presenting part.

One patient, who had an old Gillian suspension operation, could not be controlled completely, although the anesthesia was good. This is probably explained by the pull on the fascia with each contraction and the fact that the sensory nerves to the fascia come off above the eleventh thoracic nerves. Once the cervix was completely dilated and the lower segment had retracted over the head, there was no more pain, although labor was not terminated for another hour.

At the 6 weeks' postpartum examination, the cervices of primiparas seem to be in better condition. There is less evidence of laceration, erosion and discharge. This may be explained by the fact that the cervix is so markedly softened under caudal anesthesia that it relaxes and dilates more readily, and there is less danger of tearing.

We have not endeavored to use a large needle and then insert a small catheter through the needle into the caudal canal as recommended by Lundy and others. We have not done so for several reasons. The insertion of the large caliber needle into the canal is much more difficult; after threading the catheter through the needle there is a greater chance of the catheter passing into one of the sacral foramina and so giving partial anesthesia. Hingson and Edwards[3] used this method in a group of cases and felt that the incidence of partial anesthesia was greater and went back to their original technic. The chief advantage of the catheter method is that the possibility of a needle breaking in the caudal canal is obviated. We feel that the malleable reinforced needle (B.D.), which we discard after using 5 times, represents a minimum danger of breaking and that its advantages are greater than its disadvantages. We have not had a needle break in this series of cases.

DANGERS AND UNTOWARD RESULTS

The principal danger in using caudal anesthesia is introducing the needle through the dura and giving the patient a massive spinal anesthetic. Three deaths were reported in Baltimore by Block and Rochberg[4] as a result of this accident. This complication may be avoided by observing the three precautions mentioned in a previous paragraph.

FAILURE ON PART OF EQUIPMENT

In the two-way syringe there is a very small valve which may easily be lost in cleaning the syringe and not recognized. Also, occasionally this valve becomes stuck. Should either of these things happen, the solution will be pulled from the bottle and forced back into it; and therefore none will enter the caudal canal.

Clots in the needle or the tubing may keep the solution from going in. Such obstruction may be overcome by detaching the tubing and forcing some of the solution through, as well as by introducing the obturator into the needle while it is in situ.

SUMMARY

One hundred patients have been delivered under continuous caudal anesthesia at Providence Hospital with no untoward results. There was no maternal or fetal mortality or morbidity attributable to the anesthetic. This form of anesthesia is excellent in selected cases and will become increasingly more popular.

There are certain dangers connected with it, and because of them we are proceeding cautiously.

Posterior positions are harder to control and are more apt to come down as posteriors.

The anesthetic can be started in any stage of labor, but not too soon, especially in primiparas.

The child is in better condition and cries more readily.

There is less blood loss.

The patient is in much better condition than when delivered under any other type of anesthesia.

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Offers suggestions for limiting spread of infantile paralysis. Suggestions for limiting the spread of infantile paralysis are contained in a letter from a New York pediatrician to the editor of *The Journal of the American Medical Association* and published in the July 10, 1943 issue of *The Journal*. The letter says:

"In view of the approaching season for possible poliomyelitis epidemics, it seems wise to summarize possible suggestions for limiting the spread of the disease. These suggestions are founded on present day knowledge, viz.:

"In the presence of the disease in a community:

"1. Avoid the use of any water that is possibly contaminated with sewage either for drinking, swimming or washing utensils. We know that Sewage can carry the virus considerable distances and for an appreciable time.

"2. Avoid exhaustion from exertion or chilling. We know that overexertion and chilling during the incubation period tend to augment the oncoming disease.

"3. Avoid injury to the mucous membranes of the nose and throat, such as that resulting from a tonsil operation. We know that poliomyelitis exposures in the early post-tonsillectomy period are liable to result in severe—even fatal—infections, usually of the bulbar type.

"4. Treat every minor illness as a possible case of poliomyelitis, particularly if there is fever, headache and some spasm of the neck, spine and hamstrings. We know that very mild cases of poliomyelitis without recognizable paralysis are much more numerous than paralytic cases. Suspected patients should be kept quiet in bed for several days, and until passed as well by a competent examiner.

"5. Strive for proper sanitary conditions and, in particular, destroy flies and their breeding places. We know that flies can carry the causative virus of poliomyelitis, although it has not yet been proved that they can carry enough to infect human beings.

"6. Avoid unnecessary physical contacts with other people, wash hands carefully before eating, and don't put unclean objects in the mouth. We know that many healthy people carry the virus in their intestines and that for some cases, perhaps most, the port of entry of the infection is the mouth.

"7. Don't prescribe or take drugs or chemicals that are intended to protect against the disease. As yet we know of none that will do this.

PHILIP M. STIMSON, M.D., New York."

CALCINOSIS

Report of Two Cases

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CALCINOSIS is a rare condition in which abnormal deposits of calcium salts are formed in the skin, subcutaneous tissue and other parts of the body. There are two recognized forms: (1) calcinosis circumscripta, in which the abnormal deposits are limited to the skin and subcutaneous tissue, and (2) calcinosis universalis, in which tendon sheaths, nerves and muscles may be the site of calcification.

The etiology of the disease is unknown and the incidence rare. Steinitz[1] (1931) in a series of 105 cases collected from the literature found that calcinosis circumscripta occurs more commonly in females and in the older age group. The universal type is more common in the young. The disease may occur alone or in association with other conditions, especially scleroderma and Raynaud's disease. Atkinson and Weber[2] reported that in 135 cases of calcinosis circumscripta 52 per cent had vasospastic lesions of the extremities. This would indicate that vasospasm plays some part in the etiology of the disease. At the Mayo Clinic, however, of 200 cases of Raynaud's disease only 2.5 per cent showed abnormal calcification. Some other factor, therefore, must be looked for to explain the calcification. Various theories have been advanced to explain abnormal calcification: Kleinmann[3] found that injured tissues and tissues in a necrotic area have an alkaline reaction. It is known that alkalinity favors the precipitation of calcium salts in vitro. This would explain calcification in myositis ossificans in which injury and hemorrhage precede calcification. Most cases of calcinosis, however, have no history of trauma. Hoffmeister[4] suggests that calcification in arteries and other tissues is due to the low CO_2 tension of arterial blood which produces a relative alkalinity favoring precipitation of calcium salts. Burge[5] and his associates advance the hypothesis that active, injured and dying tissues are electronegative to inactive, uninjured and sound tissues. Calcification may be due to a combination of positively charged calcium ions of the blood with the negatively charged phosphate ions of the injured tissue. Calcinosis has been explained, therefore, on the basis of local tissue changes, since abnormal calcium metabolism has never been proven in this disease. Calcium, phosphorus and phosphatase levels in the blood are always within normal limits. The parathyroids have been blamed, not on a quantitative basis, because calcium and phosphatase levels are not elevated, but on the basis of qualitative dysfunction, i.e., secretion of an abnormal hormone.[6]

In calcinosis circumscripta the clinical picture is clear. The deposits are usually symmetrical, and the extremities are exclusively affected, particularly the upper extremities and fingers (sclerodactylia). It affects mainly middle-aged people. The deposits are usually about the joints, but not in the joints or joint capsule, only the soft tissues. Usually there are no constitutional manifestations. The chief complaint is frequently a nodule under the skin. The nodules are partially movable and painless at first.

Later the overlying skin becomes inflamed and tender, finally breaking down and discharging a chalky type of material which contains calcium carbonate and calcium phosphate. The ulcers produced are deep and painful but heal spontaneously. Lesions about the joints may cause considerable limitation of motion, but muscle atrophy is rare. The course in calcinosis circumscripta tends toward gradual resorption. The prognosis is in general favorable.

Calcinosis universalis is much more severe and occurs in children and young adults. It affects the deeper tissues, tendons and nerves, and if deposits occur around the joints it is usually so extensive that atrophy of muscles frequently results. The patients are usually undernourished and anemic. Infection and sepsis usually follow ulceration. As a rule the disease is progressive although interrupted at times by periods of remission. The usual form of death, prior to the use of sulfonamides, was septicemia and death following surgery for removal of the calcium.

Differentiation between calcinosis circumscripta and calcinosis universalis is at times difficult and is unnecessary. The universal variety may be just a further stage of calcinosis circumscripta.

Laboratory findings are essentially normal. Calcium, phosphorus and phosphatase levels are within normal limits. Studies of calcium balance have been positive in most cases, patients retaining excessive calcium. X-ray findings are characteristic.

The diagnosis of calcinosis is made by eliminating all other causes of abnormal calcification. In active hyperparathyroidism the blood calcium and blood phosphatase are high. Urinary calcium excretion is marked, and there is a negative calcium balance. Generalized osteoporosis is present in this disease but not present in calcinosis. In myositis ossificans there is usually a definite history of injury, and the calcification follows a muscular plane. Excessive vitamin D therapy is known to produce calcification in the soft tissues.[7] The recent use of this vitamin in the treatment of arthritis must be considered as a factor in those cases that have received high dosages of vitamin D. Calcifications in bursae may be identified by their location. Calcified hematomas may be recognized from the history of injury and the irregular nature of calcification. Calcareous gout must be differentiated. Gout occurs rarely in females, whereas in calcinosis females are predominantly affected. Deposits of sodium mono-urate may discharge through a sinus as a "chalky" material, but it is not radiopaque. The uric acid levels are normal in calcinosis and elevated in gout, especially in acute exacerbations. Roentgenographically the typical punched out areas in the bones affected in gout are not seen in calcinosis.

Therapeutic efforts in this disease have been directed to prevention of further deposits of calcium and decalcification of deposits already present. "Cures" have been reported with numerous and varied treatments. Disodium phosphate has been used in an effort to lower the absorption of calcium from the gastrointestinal tract. If a negative calcium balance is created the skeleton will use the calcium deposited in the skin for the production of bone. As might be deduced, this form of treatment has had more success in growing children. Kennedy[8] has reported a cure by the use of the ketogenic diet. This diet by its high fat content forms calcium soaps in the gastrointestinal tract. These are not absorbed, and a negative calcium balance is thus created. Skosogorenko,[9] in an effort to produce a negative calcium balance, used ammonium chloride and noticed lowering of the blood calcium, increased excretion of calcium in the urine, and diminution of the size of the deposits. Following the same line of thought many investigators favor the low calcium and low vitamin D diet (vitamin D increases the absorption of calcium from the gastrointestinal tract).

The endocrines, as expected from the fact that most patients affected have been females, have been implicated. Ovarian hormones have been used without success. Ramsdell[6] performed unilateral thyroidectomy and parathyroidectomy in 4 cases. A great improvement followed with complete remission of the symptoms in 1 case and the disappearance of 50 per cent of the nodules. In trying to duplicate his work Byron[10] was unsuccessful with this form of treatment in 1 case of calcinosis associated with scleroderma. He attributed the success in Ramsdell's cases to a relative hypothyroidism which interfered with calcium intake. In Byron's case thyroid extract had to be given because of hypertrichosis which followed operation.

Since the disease has been associated with vasospastic lesions, sympathetic block and removal of the upper thoracic ganglia have been tried but without very much benefit.

As for local treatment, if any of the calcified nodules cause pain or limitation of function they may be removed surgically. When the calcium deposits are extensive and surgery is considered, prophylactic use of sulfadiazine is recommended.

Spontaneous cures often occur, and for this reason it is difficult to evaluate treatment until more is known about the pathogenesis of the disease.

REPORT OF CASES

Case 1.—Mrs. L. G., a white woman, aged 50, came to the hospital in July 1932 with the chief complaint of a nodule on the tip of the left index finger. It was not painful but annoying. About 1 year before similar nodules had appeared on the tips of the index and ring fingers of the right hand. They were dissected out by a physician, and there had been no recurrence until the present admission, when the nodule became tender and opened spontaneously, discharging a creamy pus containing calcified particles.

The patient was obese and appeared to be healthy. On the tip of the index finger of the left hand there was a reddened wart-like eminence which was moderately tender. It felt hard, nodular and was fixed to the underlying tissue.

A roentgenogram at that time (July 1932) showed a sinus tract extending from the midportion of the shaft of the middle phalanx of the right index finger to the tip of the finger, containing apparently partially calcified material (fig. 1). Examination of the left hand showed a similar condition present in the ring and index fingers without involvement of the bones or joints. The patient has been followed roentgenographically for 10 years. In May 1933 a film of the left hand showed one small calcified particle in the subcutaneous tissues opposite the middle phalanx of the third digit. One in July 1933 showed no appreciable change in the left hand. The right hand, however, showed rather extensive subcutaneous calcification opposite the palmar surface of the terminal phalanx of the second digit with a small calcium deposit in the third digit in the same location. At that time the patient complained of pain and swelling in the left elbow. There was no history of injury. Over the medial condyle of the humerus there was a reddened, tender, elevated area. X-ray examination of the elbow showed an area of calcification 2 cm. in diameter opposite the medial condyle of the humerus.

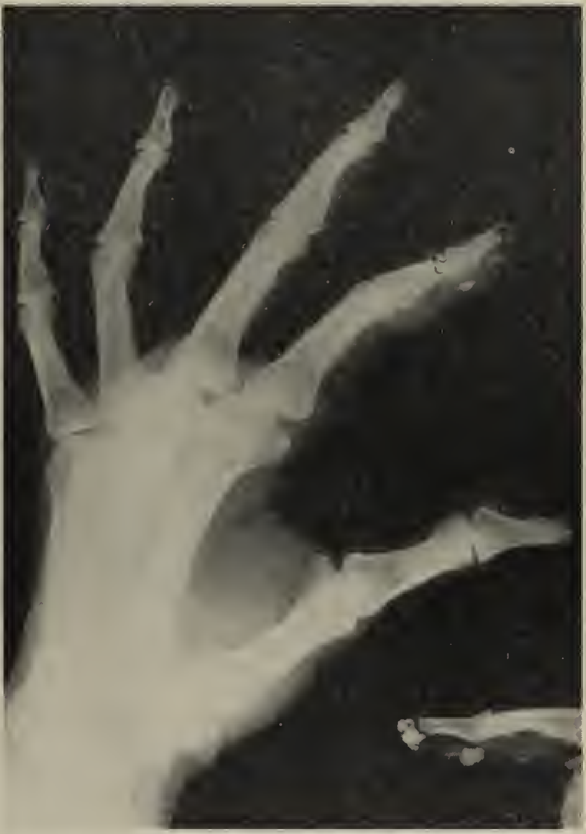

FIG. 1. Case 1. Calcium deposits in finger tips (July 1932).

The patient was not seen again for 9 years. During that time she felt perfectly well except for the inconvenience of picking calcium deposits from her finger tips.

In December 1941 a roentgenogram of the right hand showed the presence of calcium deposits in the palmar pads of the first, second, third and fourth digits opposite the terminal phalanges (fig. 2). A film of the left hand showed evidence of a large calcium deposit which was made up of rounded bodies 3 mm. in diameter, the total mass being 12 mm. in diameter. The right elbow contained a group of calcified bodies opposite the olecranon process on the extensor surface of the arm.

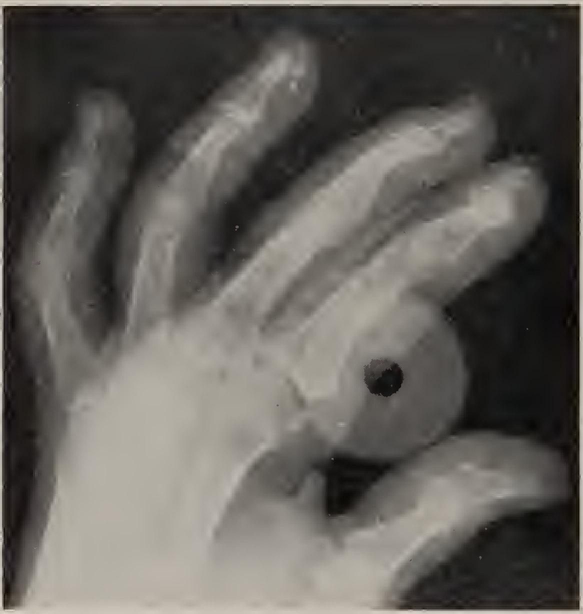

Fig. 2. Case 1. Calcium deposits 9 years later (December 1941).

The laboratory findings were essentially normal. The red blood cell count was 5,000,000 per cu. mm., the hemoglobin was 90 per cent, and the white blood cells numbered 7,000. The blood calcium was 11.9 mg., the blood phosphorus 3.1 mg., and the blood phosphatase 4.2 (Bodansky units). The urine was normal. The patient was not receiving any form of therapy.

Case 2.—C. B., a white boy, aged 17, was first admitted to the Georgetown University Hospital on October 29, 1941 with the complaint of swelling and pain in the right elbow. The present illness went back 18 months, when the patient first noticed a lump on the posterior surface of the right elbow. There was a vague history of injury to this elbow in a football game 6 months previously. The lump was only slightly painful, but since it kept growing the family physician removed it under local anesthesia and the wound healed nicely. Examination of the tissue removed showed it to be calcium and was thought to be a calcified hematoma. A similar nodule appeared about 6 months before the present admission on the same part of the elbow, but this time below the previous site. There was gradual restriction of motion and increasing pain. The nodule became red and tender and was thought to be infected. It was opened surgically 5 weeks prior to admission and continued to discharge a yellowish chalky material. A severe cellulitis developed which required hospitalization.

The boy had been well all his life except for childhood diseases. His tonsils and adenoids had been removed 1 year before. The general systemic inquiry was essentially negative except for the fact that the patient had always been somewhat underweight and had never had much vitality. For a year he had noticed a peculiar redness of the hands, which he said disappeared on exposure to cold, when his hands became pale.

On examination the boy was found to be well developed but asthenic. He was 5 feet, 8 inches tall and weighed 125 pounds. He had an almost apathetic expression, his lips were rather thick, and his face had the suggestion of mongolianism. His posture was poor, showing slight kyphosis and increase in lumbar lordosis. He was not muscular, and there was little or no subcutaneous fat. There was a mild degree of acne of the face. In the canthus of the eyes and the lobes of the ears there were many small reddened areas. This same reddening was seen on his shoulders, over the left elbow and the knuckles of the left hand. They all blanched on pressure. The skin appeared to be atrophic over those areas. There was a cellulitis involving the posterior aspect of the right elbow, extending 7 to 8 cm. above and below the joint with a draining sinus in the region of the olecranon.

The Wassermann reaction was negative. The hemoglobin was 82 per cent; the erythrocytes numbered 4,800,000 per cu. mm.; the leukocyte count and differential were normal. The blood serum calcium was 10 mg., the serum phosphorus 2.3 mg., and the serum phosphatase 2.4 Bodansky units. The urinalysis was normal. The basal metabolic rate was plus 4.

X-ray examination of the right elbow showed a large area of calcification in the subdermal region, beginning at a point opposite the joint and extending upward on the dorsum about 12 cm. (fig. 3). There was a sinus trail on the inner side of the arm about 10 cm. above the joint which was filled with opaque material.

He was given sulfanilamide, and the elbow was treated with warm magnesium sulfate compresses. The cellulitis responded to this treatment, and he was discharged in a week. One month later the patient went to the Johns Hopkins Clinic for further study. At that institution skin temperature studies showed a very pronounced degree of vasospasm involving all 4 extremities. This fact was thought to be of importance in the pathogenesis of the disease, and sympathectomy was recommended. Sympathetic block was performed on the left upper thoracic ganglia. The operation was followed by no appreciable benefit. In the following months the serum calcium and phosphorus studies there were almost identical with our findings, and the only other abnormal deposit of calcium noted was a small amount over the greater trochanter of both hips. This was more marked on the left. Since that time the patient had not followed any consistent medical treatment. He had taken Disodium phosphate irregularly, but had not noticed any subjective improvement. He had not been very active because of progressive stiffness of the joints of the upper and lower extremities. His favorite recreation was playing pool. The right elbow had drained chalky material quite frequently.

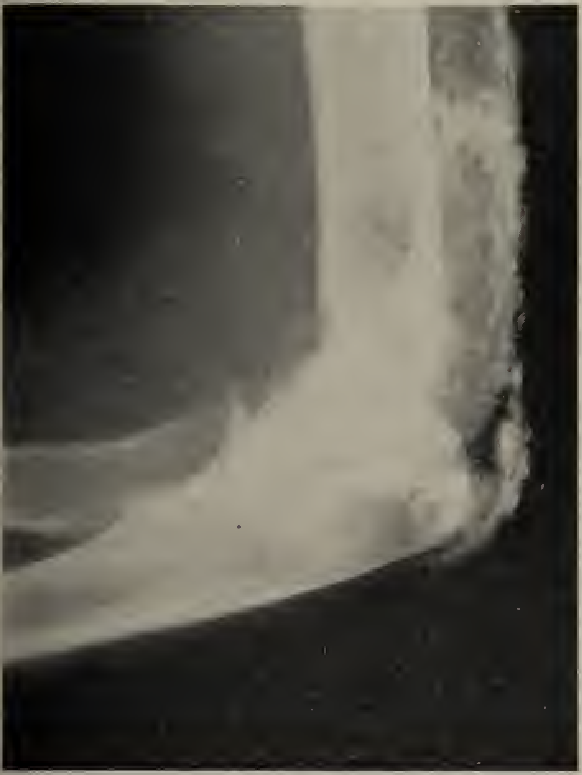

FIG. 3. Case 2. Calcium deposits in region of right elbow (October 1941).

The progressive stiffness brought him back to Georgetown University Hospital again on April 23, 1943. At that time the patient looked thinner than before. He weighed 112 pounds, having lost 13 pounds the previous summer. He had grown 1 inch since the last examination. He carried himself stiffly with the elbows and wrists flexed. The neck was held stiffly, although there was only slight limitation of motion. When he raised his arms above the horizontal he had pain in the axillae. The skin over the eyelids showed a blotchy erythema. The lesions of the skin of the hands had progressed to a point where atrophy of the skin was quite evident. This was noticeable only over the knuckles and phalangeal joints where the erythematous patches stood out from the surrounding normal skin. The patches were topped by a pearly white deposit through which ran dilated capillaries. On placing the hands in ice water these areas paled, then became blue, and then returned to normal. Atrophy of the right pectoral and deltoid muscles was again noted. Above the right elbow a hard area could be felt. It moved easily under the skin. He was very tender in the left axilla, where there was thickening of the skin about 1.5 cm. in diameter. Roentgenograms showed that the lesions had almost disappeared in the elbow region (fig. 4), but there were new ones in the axillae. His physical stamina and general health had not improved, although roentgenologically there is marked lessening of the calcium deposits around the elbow.

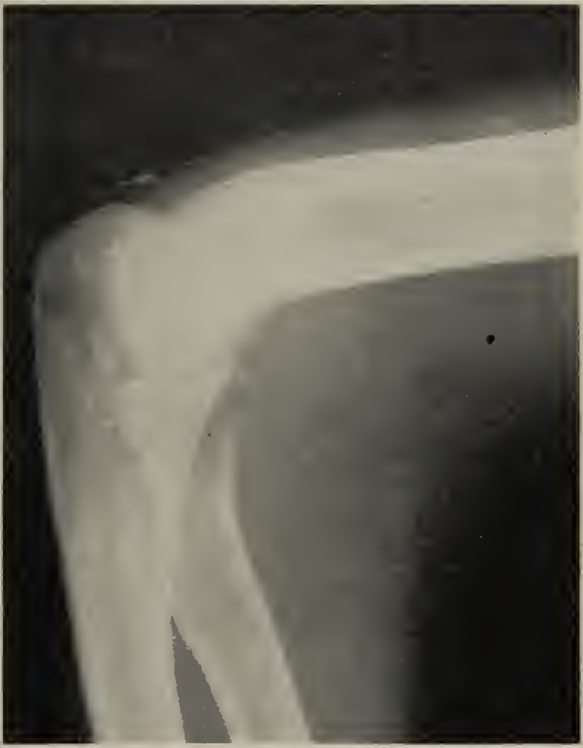

FIG. 4. Case 2. Great diminution in calcium deposits in region of right elbow (May 1943).

COMMENT

Strict classification of these two types of calcinosis seems impractical. As has been seen in our second case, the circumscript variety may progress to a generalized calcinosis with a constitutional reaction. The progressive stiffness may be the onset of future calcification, since no deposits could be seen in the left elbow, which was stiffer than the right.

We believe that investigation of the etiology of this disease will some day be found to lie in local tissue damage. These changes may follow a systemic disease. The deposition of calcium in the tissues is purely a physiologic result of those pathologic primary tissue changes. The studies so far conducted have all been directed toward calcium metabolism. As we have seen, most cases show normal serum calcium, phosphorus and phosphatase levels.

Whether the vasospastic element is important pathogenetically is an unanswered question. Our second case had a sympathectomy, but with little improvement. Although cures have been reported following removal of two parathyroid glands and unilateral thyroidectomy, the thyroparathyroid mechanism has not been proven to play a part in the disease.

SUMMARY

1. Calcinosis is a rare disease of unknown etiology in which abnormal deposits of calcium are found in the subcutaneous tissues.

2. There are two recognized types of the disease: calcinosis circumscripta and calcinosis universalis.

3. Three theories to explain abnormal calcification have been advanced.

4. One case of calcinosis circumscripta and 1 case of calcinosis universalis with early scleroderma are presented.

5. The treatment has been discussed.

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A. M. A. Journal says hospitals should not practice radiology. In an editorial discussing the place of radiology (radium and X-ray) in new forms of hospitalization insurance as well as its place in routine hospital service, *The Journal of the American Medical Association* for July 31, 1943 declares that "Education of the public as to the significance of radiologic practice is important in this direction.

"Doubtless few of those who obtain the services of radiology in hospitals realize that in many institutions the radiologist is working for a small salary and the hospital is deriving a considerable profit from his professional practice. In other institutions what amounts to virtual fee splitting between the hospital and the radiologist is routine technic.

"Certainly it is not to the interest of the patient, who must be given first consideration, that the necessity for radiologic study of his case should be made the occasion for providing excess income for the hospital. If the trend is to be controlled, every new arrangement between a hospital and radiologist and every new plan for a prepaid medical service should be carefully scanned by the county medical society in the area concerned to determine whether or not it violates the fundamental tenets that have been so often iterated and reiterated by the House of Delegates of the American Medical Association.

"The danger to the sick does not lie in the collection of income for the hospital or the radiologist; it is in the inevitable deterioration that must come in any form of medical service when its practitioners are placed on a basis in which the quality of the service rendered is secondary to the price charged or the method by which the service is supplied."

Editorials

YOU CAN'T LEGISLATE A MILLENNIUM

"—foreign to the American way of individual enterprise."

REVEILLE IN WASHINGTON

Some months ago a public official was discussing privately with a physician probable postwar developments. Life, he said, will not be the same. For one thing, we will be governed by bureaucrats. Inevitably, the people will be regimented. Even property rights, he predicted, will be threatened by a super-government. Doctors will fare no better nor worse than other groups. They will come under government control and be hirelings of the state.

This jaundiced outlook is in sharp contrast to the rosy optimism of the "planners." They have long since concluded that individual enterprise and the competitive system can only survive in a modified state. A planned economy, they believe, will not only benefit the greatest number but will be demanded by the American people when the war is over. Legislation enacted in recent years, they say, is indicative of how far this country is prepared to go to attain security for its people. They point to the overwhelming sentiment among the people of England for the Beveridge plan. Not discouraged by the cold reception given the report of the National Resources Planning Board, they are confident that postwar conditions will be such as to stimulate interest in the report and its recommendations. They are, of course, supporters of the Wagner-Murray-Dingell Bill recently introduced in the Congress. This bill would amend the Social Security Act to provide for additional social insurance coverage. Among its features are medical care and hospitalization benefits. This legislation is typical of the plans which the "planners" are making in the belief that freedom from want and other vicissitudes of life can be assured all of the people by enactment of laws.

However, it isn't quite as simple as the "planners" would have us believe. Certainly man's lot can and should be improved but human nature being what it is, even the best laid plans will be a long way from perfect. Furthermore, the effect of some of the proposed plans upon the morale of the people is a factor not to be minimized. The individual cannot be relieved of all responsibility for the security of himself and his family without weakening our entire social structure. Frugality, hard work, courage in adversity, and individual initiative are some of the attributes which have made our nation great. In other words, our strength has in no small degree been due to the opportunities afforded by the competitive system. Whatever plans we undertake, these must not be destroyed. If the American people come to believe that the "planners" have this in mind, they will have none of it.

EMERGENCY AMBULANCE SERVICE

In order to provide more efficient ambulance service to individuals who are injured or who become sick on the streets of the Nation's Capital, the Commissioners of the District of Columbia recently appointed a committee consisting of representatives of Washington hospitals, of the Police and Fire Departments, and of other Government agencies to study the problem and submit recommendations. Following its investigation, the committee submitted recommendations, and based upon these, a plan has been developed for the control and dispatch of ambulances in emergencies.

An important feature is the central control service for the dispatching of ambulance equipment. This service will be established in the Municipal Emergency Communications Center's fire alarm headquarters where there are operators who are trained in receiving emergency calls and dispatching emergency apparatus. The personnel of no other agency of the municipality has had this training and experience. The evaluation of reports by trained operators will do much to improve the emergency ambulance service for the District of Columbia. A so-called turnout board installed at the dispatching center will show the exact whereabouts of ambulances at all times.

The committee felt that there was sufficient ambulance equipment available in Washington to care for the needs of our city. What was needed was to integrate these various units so that they would function efficiently. The plan finally adopted was unanimously approved by the committee and the Commissioners of the District of Columbia. Appropriations have already been made by Congress to cover the cost of the organization and the operation of the plan and it will soon be in effect.

One of the interesting features of the plan is the communications system which has been developed. Two-way radio equipment will be installed in each ambulance under the jurisdiction of the dispatching center.

As previously stated, the Commissioners have approved the new set-up which is to be known as the Emergency Ambulance Service. Technical details in connection with its establishment are proceeding rapidly and the service should be in operation in the very near future.

J. A. R.

OUR ROLE IN PUBLIC AFFAIRS

In a recent editorial* in the *Journal of the American Medical Association*, there appears the following statement:

> "By the very nature of things, a physician in the Congress should be able to present to the membership of that august body the scientific point of view that is lacking from the education of most of the members, the majority of whom are lawyers. Indeed, with seven physicians holding membership one might anticipate that there would not be any difficulty in getting the medical evidence clearly before the legislators."

That this has not been the case is revealed by Dr. Walter H. Judd, Congressman from Minnesota. Dr. Judd sums up the experiences of the seven physicians in Congress with the remark: "I am convinced that what we need most in Washington is more doctors in government and, above all, more of the kind of mental habits that good doctors must have." He urges the medical profession to accept responsibility for leadership in postwar medicine and advocates the establishment of an A.M.A. office in Washington.

The *Journal* comments that "heads of practically every governmental agency call at frequent intervals on the American Medical Association in their desire for accurate information regarding medical proposals." Reference is made to the Bureau of Legal Medicine and Legislation and the fact that state medical societies regularly send to their representatives in Congress information regarding pending medical and health legislation. "Unfortunately," the *Journal* continues, "some members of Congress studiously avoid any attempt to obtain consultation or information. . . . " The warning is sounded that "the contacts of American medicine in municipal, state and federal government are surrounded in these times with hazardous possibilities."

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* "Doctors in Congress," June 26, 1943.

These observations undoubtedly have considerable merit but they do not tell the whole story. The fact is that Congress is very sensitive to public opinion. Is it not possible that one of the reasons why the Congress has not been more responsive to the views of Dr. Judd and his colleagues is that the medical profession stands none too well with the people of this country?

President Virgil M. Hancher of the State University of Iowa, speaking to the Iowa State Medical Society last spring, had this to say on the subject:

> "It is not from the viewpoint of a hostile critic. . . but from the viewpoint of a professional man and a friend that I venture the suggestion that your profession has been declining somewhat in the confidence and regard of the public, and that it is vitally important for you to restore that confidence and regard at the earliest possible moment. It may be difficult for doctors to recognize and admit such a loss in confidence and regard. The dependence of the individual patient is so great and his confidence in his physician is so complete that doctors often are not called upon to become skilled in the nuances of public relations. Being conscious of their own skill and probity and being affected by the dependence of the patient, they may remain insensitive to situations which bring criticism on the profession as a whole. And no doubt criticism of the profession seems doubly unfair because of the very great advances which have been made in the medical sciences during the past one hundred years and the contributions which those advances have made to the health and welfare of the people.
>
> "Nevertheless, I believe that I am correct in my observation that your profession has suffered a decline in the confidence and regard of the public. The causes no doubt are many and complex. I shall not attempt to enumerate or to analyze them, but I shall mention two. This decline results from the belief that the profession is overspecialized and from the belief that the cost of specialized service is too high. It will be an unwelcome day when the public suspects that men are being attracted to the medical profession not for the practice of an art, but for the making of money. The respect with which the physician is held does not spring from the size of his fees but from his qualities as a man and as a practitioner.
>
> "These present beliefs may not be well founded, but it is important to you that they are held by large numbers of people. . . . "

CALENDAR OF JULY MEETINGS

July 2	Procurement and Assignment Committee
	Committee on Medical Service
July 9	Advisory Committee to Social Welfare Organizations
July 12	Committee on Arrangements, Annual Scientific Assembly
July 14	Procurement and Assignment Committee
July 15	Subcommittee on Venereal Diseases
July 16	Committee on Public Policy
	Subcommittee on Program, A.S.A.
July 19	Chairmen of Committees for 1943–44
July 23	Interprofessional Conference
July 26	Executive Board
July 29	Subcommittee on Mental Health
July 31	Section on Pathology

What should the medical profession do about this state of affairs? Dr. Hancher says:

> "There is an increasing public interest in preventive medicine, in health insurance, and in so-called 'socialized' medicine. . . . If you regard this as an undesirable development, and I am certain that many of you do, you have no alternative but to keep your house in order and to convince your patients and the public that your profession is dominated by a desire to serve and is endowed with a capacity to serve the needs of the times."

Important though it may be that the medical profession be represented in the halls of Congress by doctors, it is of the greatest importance that it reëstablish itself in the confidence of the people. This task is not one for officers and committees of medical societies alone. It is an undertaking in which every member of the medical profession must do his part, remembering that what he does speaks more eloquently than what he says.

In and Out of Focus

BY THE OBSERVER

The Society's Position on N.P.C.

Inquiries being received at the Medical Society's office indicate that a number of our members are not familiar with the position taken by the Medical Society in regard to the National Physicians' Committee for the Extension of Medical Service. Although N.P.C. was endorsed by the House of Delegates of the American Medical Association, our Society adopted the following recommendation of its Executive Board at the regular business meeting held on March 3, 1943:

> "That support of the National Physicians' Committee for the Extension of Medical Service remain a matter of individual choice, but that the Committee be not endorsed by the Society."

In its report the Board stated:

> "Physicians are by no means in agreement as to the propriety or effectiveness of the activities of the N.P.C. in regard to legislation. Many are of the opinion that the American Medical Association and the state societies are obligated to express their opinion on legislative matters affecting medicine and can do so more effectively than any other body."

Ever since N.P.C. was organized, there have been differences of opinion among physicians as to the need for such an organization. The view has been expressed by those opposed to N.P.C. that its relations with the A.M.A. are so close as to confirm the belief that it is really an activity of the Association. They point out that officers of N.P.C., with the exception of its executive administrator, are also active in the affairs of the American Medical Association.

Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association*, has championed the cause of N.P.C. from the beginning. In an address, "New Conditions Demand New Techniques," given before members of the House of Delegates of the A.M.A. and officers of various state medical societies at Cleveland on June 5, 1941, he said:

> "I have been concerned now for almost twenty-eight years with the possibilities that exist in the Headquarters Office of the American Medical Association for the dissemination of information to the American people. No other organization, including the United States Government, has done as much to educate the people of America regarding the public health as has been done by the American medical profession through the American Medical Association, the state societies, the county societies and similar groups. But those very organizations, the American Medical Association and the State and county societies, cannot be effective in the dissemination of information leading to action in relation to problems concerning Government relationships of medicine. They cannot be as effective in that regard as they can in education regarding disease.
>
> "For that very reason I have personally, and without regard to any position which I may hold in the Headquarters Office of the American Medical Association, felt that in the National Physicians' Committee the American medical profession possesses an organization potential to accomplish more for education of the American people regarding the fundamental standards inherent in the establishment of a high quality of medical service for the people of the United States, than it could possess in any other organization."

This is strong endorsement indeed. It is buttressed by the warning of A.M.A. officials that expansion of the legislative activities of the A.M.A. might lead to taxation of its income.

Critics of N.P.C. insist that there is little prospect that the A.M.A. be taxed and even if this threat is real, it should not in their opinion deter the Association from sponsoring a program which it believes will benefit the profession and the public. Furthermore, the A.M.A. and the state societies have and still are carrying on legislative activities, in many instances doing it very effectively. Why should funds which might be used for the expansion of these activities be given to N.P.C. as has been done by a number of medical organizations? What it boils down to is this. Those who do not favor N.P.C. approve its objectives but are still firm in their belief that the A.M.A. and its component societies can do the job better themselves and in doing it can reflect greater credit on the profession.

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Reprisal Taxation?

There have been some interesting reactions to views expressed in the House of Delegates of the American Medical Association at its meeting last June in regard to the establishment of a Washington office. Some of the delegates who did not express themselves at the meeting have had something to say on the subject in reports to their societies published in state medical journals. The following observations were made by Drs. James R. Miller and Thomas P. Murdock, delegates from Connecticut.

"Your Delegates noted with sadness the fear with which the officials of our great Association viewed their relations with the taxing authorities, both Federal and State. Under the Income Tax Regulations, the American Medical Association which claims exemption as a scientific body cannot spend any appreciable amount of its funds to influence legislation without losing its exemption. The New York Medical Society meets this situation by labelling itself for purposes of taxation as a 'Membership Corporation.' Our own State Society is registered as a 'Business League.' While it might cause the American Medical Association to 'lose face' in its own estimation, we feel sure that the public would not care a fig what we called ourselves and, unless such a change would involve further tax difficulties which do not appear on the surface, it would seem that the A.M.A. might well hold its nose and make the plunge. Surely we do wish to influence legislation and the influence of the profession is sorely needed in framing health laws. Physicians all over the country are unhappy when they see labor unions and farm coöperatives functioning in Washington with the freedom which is apparently denied to our great profession and they rightly desire that some way be found to make the profession's voice heard through its own representatives without cringing in fear of reprisal taxation."

22 Years Later—

"The concrete things that seem to underlie our troubles are (1) the various manifestations of what has come to be known as 'state medicine' and (2) the extraordinary growth and popular endorsement of the healing cults. Two general social movements are discernible when one examines the problem; and the actions and reactions engendered by these movements have for the moment erected a specter, which too many of us have mistaken for an issue—the medical profession versus the people. . . .

"That portion of humanity which forms our environment is making some new experiments just now. . . We witness the ancient process of cut and try; sometimes we engage in it; sometimes we are amused by it; sometimes we feel it. Maternity bills, health insurance schemes, public health institutes, social hygiene centers, rural sanitation commissions, child welfare stations, societies for the prevention of this and that, these are the 'state medicine' cut and trys that we feel. . . .

"Our duty is to act out our part as members of the social body, contributing counsel and advice in the formulation of the protocols for social experiments and supporting or opposing legislation designed to put them into effect in accordance with our judgment and conscience. . . .

"Our convictions should instruct us that, whatever readjustments are in the making, we are indispensable to humanity. Have we not in our possession all of truth and eternal value yet attained by man in the science that we represent, and will not society require it at our hands? There is no issue between the medical profession and the public; we are frightened by a specter. . . .

"Recognizing the medical profession as the creature of society, our duty is to seek the good of the social whole, knowing that our ultimate good is wrapped up with it. The seeking of excellence in methods, morals and manners is our corporate task, in order that mankind may find blessing at our hands; for the seeking of excellence is the great task of humanity itself.

"Our preoccupation should be the correction of those defects in the social organization and in our own resources which provoke in society the maladies now discernible. We do ill to ourselves and to society if we yield to fear and spend our energies in vain strife to maintain institutions and practices which society is determined to modify. We may need to stand together for justice in the days that are to come; we may need to witness strongly for truth. . . ."

These statements were made in an address by Dr. Henry C. Macatee, as President of the Medical Society of the District of Columbia, on December 14, 1921. Nearly twenty-two years later we are still concerned with social legislation affecting medicine, and another medical leader, Brigadier General Fred Rankin, President of the American Medical Association in 1942–1943, reminds us that unless we accept our responsibilities, control of medical practice may pass from the hands of the physicians:

> "While it would appear that these influences have suddenly loomed on the medical scene, it should be realized that they have long been forming and the present military conflict has merely hurried their development and magnified their significance. That they can no longer be ignored seems difficult to controvert. We must face realistically these tremendously forceful socioeconomic trends which are intimately involved and deeply concerned with the Nation's medical problems. . . .If the limitless and baneful potentialities that can be projected into the science and art of the future of medicine are to be averted, it becomes imperative in this transition period that the wise and tempered counsel of the medical profession exert its proper influence."

It appears that the discussion period is about over and we are approaching the stage when there will be action.

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Another Medical Group Formed

A bewildering number of committees and organizations of various sorts have made their appearance since the war began. Each espouses what it considers a vital cause. Among those which have appeared on the medical scene is the Committee of Physicians for the Improvement of Medical Care. The Committee is headed by Dr. Channing Frothingham, noted Boston physician, former member of the faculty of Harvard Medical School and Past President of the Massachusetts Medical Society, and by Dr. Russell L. Cecil, Professor of Clinical Medicine at the Cornell University Medical College, who is Honorary Chairman. Dr. Milton C. Winternitz, former Dean of Yale University School of Medicine, and Dr. Carl Binger of New York are Vice Chairmen. Dr. John P. Peters of Yale University School of Medicine is the Secretary. Other members of the group are Dr. George R. Minot of Harvard Medical School, Dr. G. Canby Robinson of Johns Hopkins University, Dr. William J. Kerr of the University of California Medical School, Dr. Hugh Cabot of Boston, and Drs. Louis Cassamajor and Ernst P. Boas of the College of Physicians and Surgeons, Columbia University.

In a statement to the press the Committee declared that due to the war with the resultant shifts in population, "a solution of the problem of the distribution of physicians to care for the civilian population is becoming increasingly urgent." The Committee directed attention to the shortage of physicians to care for civilian health needs as reported by the Office of War Information. It pointed out that the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, which was set up to protect civilian communities by proper distribution, had been unable to maintain an adequate supply of physicians in many areas and had been handicapped by insufficient authority and the barriers of state licensure. The Committee urged that the United States Public Health Service be designated the operating agency, entrusted with the responsibility of protecting the health of the civilian population and that the Service should be empowered to grant commissions to physicians in order that they may be assigned to communities where they are needed without interference from the state licensure boards.

Other recommendations included approval of the Wagner-Murray-Dingell Bill, which the committee says "provides a framework and a basis for discussion from which it is sincerely hoped that a constructive program for improved medical and health care of the American people may be developed."

In other words, a new group has appeared on the left.

Changes in Medical Education

Wars have always brought about changes in medical education. Reasons for this are numerous, one being that due to sickness and injuries suffered by great numbers of men, physicians gain invaluable experience. So far in the present conflict there have been many new developments which will greatly benefit mankind.

Although optimism about the future of medical education is warranted, Dr. Frank R. Ober calls attention in the *Harvard Medical Alumni Bulletin* for June 1943 to some of the problems confronting educators and others having an interest in this matter. He says:

> "This war has disrupted the teaching of graduates in the great foreign clinics, and obviously it will be many years, if ever, before those centers will function again. The foreign and domestic physicians will turn toward the United States for help, and why should they not, since we have great medical centers and noted medical men in all the fields of medical science? The war has also disrupted undergraduate and postgraduate medical education in this country: first, because the armed forces have called into service all physically fit medical students who are limited to one year of hospital training which practically nullifies the pools from which doctors are obtained who wish to go into special fields; second, physically fit physicians who are the ones that go in for postgraduate courses have been called to active duty; and third, the teaching school faculties have been so depleted that there are scarcely enough teachers to maintain the teaching of the undergraduate, especially under the present speeding up of the whole medical program."

Dr. Ober continues:

> "It is vitally necessary then if we are to keep up our standing in the medical world that preparations be started now to organize a program of graduate education which will meet the demands that must surely come when the war is over. It should be our duty to supply adequate additional educational advantages for all those young doctors who have had a one-year internship, and also for all those older doctors who wish to improve their education before returning to their practices. There will be thousands of both, and schools and hospitals will be expected to help fill the deficiencies in their education. Many will desire more hospital experience. This will be more easily accomplished in the specialities, but more difficult in medicine and surgery since routine hospital services will be filled perhaps by recent graduates. This problem is probably surmountable; in any event, it will be acute. Therefore, a solution must be made before it becomes imminent. One great fault or weakness of graduate medical education is that for the most part it is on a commercial basis; that is, the student pays all the fees and when he cannot do so the number of students in the schools falls off. As the result, teachers lose interest. It is obvious that the great medical centers toward which foreign and domestic students will flock should be endowed on a permanent basis instead of gambling on a hand to mouth program if we wish to preserve a proper social structure in the future of medical education."

Well, here is a matter in which not only medical schools but medical societies should have a deep interest. It is the duty of the latter, as this Observer sees it, to make every effort to assure our physicians in the services that upon their return they will receive the training they need.

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The Bureau Serves the Community

MEDICAL BUREAU has become a much more important factor in the community than many physicians of the Medical Society realize. Hundreds of persons turn to it seeking their doctors, requesting the names of physicians if they do not have one, information about doctors' office hours, hospital connections, and so on.

The BUREAU is perhaps unique among all telephone exchanges of its type in the country in that the majority of its calls are for information. This is largely due to the fact that Washington is a defense area and the BUREAU, having been widely publicized, is looked upon by the public as a reliable source of general medical information.

As most of our members know, a classified list of members of the Society has been prepared under the direction of the Executive Board for the BUREAU's use. Specialists have been classified according to type of practice and general

(*Continued on page 326*)

President's Page

WE MUST THINK—AND ACT

Most physicians in Washington have been extremely busy since the beginning of the war. Every minute of their time is crammed with professional work, hospital staff sessions, scientific meetings, and such social affairs as they can or care to attend. No wonder many physicians are utterly weary.

Of course, doctors are doing better financially than they have been in a long time. They should, considering the way they must work. But herein lies a serious danger. Too many physicians may unthinkingly look upon present conditions as permanent. Obviously this is not the case. Warning signs are already up. Proponents of a system of Government-controlled medicine are very active. So if physicians really expect to have anything to say about how medicine is to be practiced in the future, they had better prepare now for the inevitable struggle.

We must not minimize the importance of the proposals which are now being considered by the Congress. For physicians can be sure that the powerful group supporting them are not underrating the opposition of the medical profession. In this issue of MEDICAL ANNALS there appears an analysis of the Wagner-Murray-Dingell Bill. This should be read carefully and thoughtfully by every physician. In addition, our members could profitably look back over the past few issues of the ANNALS for they may have overlooked important articles and editorials on issues confronting medicine.

Legislation is not the only problem which looms before us. It is our obligation to include our physicians in the service in all our plans for the future. They have a right to expect that we will do everything in our power to help them reëstablish their practices.

Of course, thinking alone will not get us anywhere; neither will discussion. They are, however, essential preliminaries to action. Your Society will submit a number of recommendations to you in the coming year. In the meantime, I urge you to begin thinking about these matters so that when proposals are made by your officers and committees, your decisions will be based on a knowledge of the facts.

Fred R. Sanderson

War Section

COMMANDER KNOWLTON RECEIVES AWARD

Commander Don S. Knowlton is the first District physician to be awarded the Legion of Merit "for exceptionally meritorious conduct." Commander Knowlton is now Camp Medical Officer and Commanding Officer of the Medical Field Service School, Infantry Battalion, Camp Lejeune, New River, North Carolina. His citation reads as follows:

"For exceptionally meritorious conduct in the performance of outstanding services to the Government of the United States as Executive Officer of the First Medical Battalion during the seizure and occupation of Guadalcanal, Solomon Islands.

"Under extremely difficult and dangerous conditions, Commander Knowlton, by his untiring effort and skillful organizing ability, developed a high state of efficiency in the Medical Battalion, particularly at the Division Field Hospital.

"The steadfast functioning of this unit as a principal evacuation and medical supply center of the Division, in an area heavily bombarded by Japanese air and surface craft, is attributable to his brilliant leadership and excellent training of subordinate personnel."

"Don," as he is known to his many friends in the medical profession in Washington, entered active service with the Marine Corps early in the war. He has made a splendid record, displaying unusual administrative ability.

NURSING DIVISION OF PROCUREMENT AND ASSIGNMENT

The Nursing Supply and Distribution Unit of the War Manpower Commission has been made the Nursing Division of the Commission's Procurement and Assignment Service.

Paul V. McNutt, Chairman of the Commission, in making the announcement, stated, "The objectives of the Nursing Division are the same as those divisions of the Procurement and Assignment Service now dealing with the dentist, veterinary, physician, and sanitary engineer for their professions. They involve the recruitment of sufficient nurses to meet the needs of the Armed Forces and the provision of minimum adequate nursing care for the civilian population, non-military governmental agencies, and industry."

Recommendations regarding the operation of the Nursing Division will be made to the Directing Board of Procurement and Assignment Service, headed by Dr. Frank H. Lahey of Boston, by a Nursing Advisory Committee. The Nursing Division is represented on all the present advisory committees to the Directing Board that are concerned with problems that affect nurses.

Miss Katherine Tucker, Philadelphia, Pa., and Miss Laura Grant, New Haven, Conn., have been appointed to the Directing Board. Miss L. Louise Baker has been named an Assistant Executive Officer of the Procurement and Assignment Service to work under the general direction of the Directing Board and Dr. Maxwell Lapham, Executive Officer. The already existing technical, clerical and statistical sections of the Central Office of Procurement and Assignment Service will be utilized and four nurse consultants will be added to the staff to supervise the work in the field.

LETTERS FROM PHYSICIANS OVERSEAS

The Secretary of the Medical Society continues to receive letters from physicians in the armed services. Only communications from physicians overseas are published in this issue.

From Captain Darrell C. Crain, 65th Station Hospital, A.P.O. 4580, c/o Postmaster, San Francisco, California:

Dear Ted: So many things have happened since I last had occasion to write you that I am not sure just where to begin. However, I am sure the most appropriate place is to express appreciation for all the gossip sheets, bulletins, journals, etc., that have arrived. I am sure that others have told you the same, but I would be lax in my obligations if I did not also express appreciation for all of them. Never having spent much time away from home before, I had never realized the value of mail—particularly something like that gossip sheet which is a pip. It is perfectly amazing how officers and men alike congregate around the mail orderly when he comes in with a batch of mail. The expressions on the faces as the mail is being handed out would make a Hollywood movie without any further trimmings. And of course the most welcome thing (next to a letter from the wife) is the news of what the boys back home are doing. Please keep my name on the list and the letters cannot come too often.

I believe the last time I wrote you I was either in Rochester, Minnesota, or on my way there. Well, I got a terrific break on that proposition for I attended the twelve weeks' course in Internal Medicine at the Mayo Clinic and it was excellent. Tell all the boys who are Mayo graduates that they can take a bow, for their old Alma Mater is sure putting out good stuff for the service medical men. While there I ran up to Minneapolis and passed the written part of the American Board, but have not been able to get off since to take the oral. That may have to wait until after the war (and where have I heard that before).

The Mayo proposition has its bad point too, for it cost me my promotion. Being on "detached service" (at the course) when my six months were up, my C.O. would not turn in my name until I returned. But unfortunately, I returned to Camp Carson only to pick up my bags and leave for the unit to which I am now assigned. This is a small Station Hospital of which I am Executive Officer. We are an overseas unit and as you can see from the address we have already taken the first step.

I only wish I could have had a movie record of all that has transpired since I left D. C. last August. Did you ever see a group of doctors try to drill??? Well, believe me, there are some who just have no rhythm or anything else when it comes to doing "right face," "left face," etc. At Carson, the chief of the surgical service was a rather quiet, staid Harvard man. Now the Major was right there with a scalpel in his hand, but out on the drill field he sure was no Sgt. York. You could spot him a mile off bobbing up and down out of step. Then there was the first day we all went through the gas chamber. Boy, were there some weeping physicians? Only person who seemed immune was Tom Dry (from Willius' cardiac section at Mayo) who seemed to be able to take off his mask in the d—— place and breeze around without the slightest difficulty.

Of course, the thing that every one asks is, "How do you like the Army?" Well, that is a question that cannot be answered in one syllable. I have come in some evenings from some of our training days so completely pooped that all I could do was stretch on the bunk for half an hour. And I have crawled on the ground until I had so much sand over my wrists that I could hardly see my watch. But for the first time in ten years I can walk five miles in 90 minutes with a pack over my back and come in feeling swell. And at the present time I have more sunburn than I ever thought possible. In other words, it all adds up to excellent physical condition—but believe me the nights and Sunday afternoons are sure lonely since the family went back to D. C.

All of which brings up my first concrete suggestion. Why doesn't the Society have an "Army widow's night?" Get hold of all the wives of the men who are away and see to it that the girls have a good time. You can just bet your boots that my wife and lots like her in D. C. are pretty lonesome too—even if they do have family and friends. It would give them something else to think about and help them to meet the other wives and swap stories. I realize that I am treading on thin ice when I suggest it, but you might even assign some noble gentlemen to pick up the girls and make them feel like they were stepping out once again.

Thanks a lot for the letters and keep them coming. I will try to send you an elephant from India or an extra wife from Guna Baluna.

From Major Edward J. Grass, 148th Infantry, A.P.O. 37, c/o Postmaster, San Francisco, California:

My dear Mr. Wiprud: Your letter of April 2 most gratefully and thankfully received at this far off distant island.

Mighty glad to see the scientific programs continued and wish I could be there and attend, and get a little up to date medicine and surgery. Our greatest problem here is trying to put the knockout blow on Mr. Anopheles. I see where Churchill is wearing two pairs of pants. Must be getting ready to open up a second front!

Have a title now, Regimental Surgeon, and with the change the General gave me a boost in rank (not pants). Please give my greetings to members of the Society, miss them lots, and my compliments to you.

From Captain Benjamin P. Lafsky, 28th Surgical Hospital, Unit A, APO 923, c/o Postmaster, San Francisco, California:

Dear Mr. Wiprud: Yesterday I received the MEDICAL ANNALS of March and also your news letter of April 2. Both were greatly enjoyed as was your first letter. In reading over the list of names who had replied to you, I couldn't help but notice that we on foreign duty had not responded very well so I thought it best to get busy and do my share.

I have been in Australia over a year now but have not done much medical work since most of my duties have been administrative. The amount of medical work naturally increased during the Guadalcanal and New Guinea campaigns but now things are fairly normal again. My unit is helping to run the convalescent section of a general hospital. In this part of the world we see some of the illnesses we read about in our school days such as dengue fever, malaria, typhus fever, tropical ulcers and Q fever. The typhus group is quite complex and in this group is tsutsugamushi or Japanese River fever which we used to joke about in our school days. Being interested in allergy, I have noticed that the grasses pollinate for months but there is no ragweed. We had two officers in our unit who had grass hay fever and were so miserable that one has been boarded to limited duty and the other will be soon.

This field work is very much different from general or station hospital duty. We are concerned with crating supplies in an efficient and durable manner so that the crates or boxes can be used again when we move. The mess set-up, laundry facilities and the procurement and purification of water are also of great concern.

One of the things that is surprising to us over here is the rapid promotions back in the States. A few of our officers are still lieutenants after one and a half to two years of active duty, simply because the T of O is filled on captains in our unit. Medical officers in field units and with troops have to become adjusted to the idea of doing other than medical work and the periods of waiting, training and preparing for action are quite difficult, to say the least.

Most of us are completely adjusted to this life and are well over our homesickness. I would have been disappointed if I had spent all my time in the service back in the States. It would be nice to return home for a visit but not permanently until the war is over. So far this has been a healthy life for me with plenty of good food, entertainment in camp and a town nearby for diversions other than G.I.

I am enclosing a few snapshots in case you have forgotten what I look like. If you have time, stop by at my home address and see my mother, who has a large collection of these snapshots.

From Lt. Col. E. C. Morse, 40th Station Hospital, A.P.O. 700, c/o Postmaster, New York, N. Y.:

The Medical Society letters showing the activities at home are most interesting and welcome to the two of us here from Washington, Lt. Clyde Reeves and myself. We are permitted to say we are "somewhere in North Africa," and the newspapers will give you an idea of some of the activities in this quarter. When time permits we have clinical meetings once a week, and as there are no two medical officers in my hospital from the same medical school, the discussions are especially interesting.

From Major H. J. Russell McNitt, 172nd Station Hospital, A.P.O. 923 c/o Postmaster, San Francisco, California:

Dear Mr. Wiprud: I have appreciated so much your newsy letters and I only hope that you continue to send them on. I have been in Australia now for over a year and you can be sure I am very anxious to get back home. I am chief of the surgical service of a station hospital and we see many interesting cases. It scarcely seems possible that I have been away from my practice now for twenty-seven months but such is the case. I see Commander Raymond Murray frequently, in fact, I had dinner with him last evening. He is doing very well in the Navy and seems to like it very much. The only other D. C. Society member I ever see is Captain Lafsky. The climate in this part of Australia they say has all the features that California is supposed to have but you can still give me the good old U. S. A. (any part of it, too). Our winter is about to start which means that it won't be so hot. The leaves never leave the trees but the grass does get dry due principally to the small amount of rainfall.

The long list of Society members in the services still in the States makes us very jealous. Over here promotions are few and far between and they know nothing about giving promotions every six months as is so frequently done in the States. Best of regards to you and all my friends.

From Lt. Comdr. Reginald H. Mitchell, U.S.S. Lackawanna, c/o Fleet Postmaster, San Francisco, California:

Dear Mr. Wiprud: Today I was very happy to receive your bulletin letter of April 2, 1943 and to hear how things were going with the Society. Also most interesting was the news on the location of many members of the Society and many of my friends. To date I have not received any of the bulletins, letters or ANNALS of the Society since I joined the ship. This covers a period of about ten months. Needless to say I have missed them all. Oh, yes, I have received one letter, you guessed rightly, it was my bill for my annual dues. How true that letters never find one but bills always can.

In reading over the location of the men in service I am surprised and disappointed that I did not run across Dr. Knowlton out here. Very few of the men mentioned seem to be on sea duty or away from the country. In a way I may envy them but I would not exchange my place or experience, hazardous as it may be, with any of them. However, I will be glad when the time comes when I shall be able to return home, even if just for leave, and see my old friends again. I hope you will remember me to those that you see.

I would appreciate it if you would check on my mailing address so that I may receive your bulletins and the ANNALS. It is difficult to keep up with current medical advancements due to mail irregularities and I trust that I may soon hear from you and the Society.

Please pardon any mistakes in the typing as with the rolling of the ship I don't always hit where I aim. My profession is medicine, not gun pointing.

From Captain A. M. Wheeler, Co. C, 47th Medical Battalion, A.P.O. 251, c/o Postmaster, New York, N. Y.

I'm writing this from the "dark continent" where I have been for some time. My main reason is to thank you for a newsy letter I received from the Society. It was really splendid to get the news from a professional angle, or should I now say from the "tradesman's" angle?! I wish I could be as newsy about North Africa. From a medical angle it has been very interesting. I'm in a mobile surgical unit and I've done surgery hours on end, in fact, "ready to drop" is almost literally true. I have six M.D.'s under my direction and one dentist. These surgical units are excellent and each company can create, in a short time, six operating teams within a few miles of the actual fighting. Our patients reach us usually in two hours after injury, giving us splendid opportunities to save many. We are most grateful for the plasma, using two to four units on a patient.

AN ANALYSIS OF THE WAGNER-MURRAY-DINGELL BILL*

Referred to generally as embodying an Americanized Beveridge plan but offered in Congress, according to Senator Wagner, "simply as a basis for legislative study and consideration," legislation was introduced, June 3, in the Senate by Senator Wagner, New York, for himself and Senator Murray, Montana, and in the House by Representative Dingell, Michigan, proposing to create a Unified National Social Insurance System (S. 1161; H. R. 2861). The Senate bill is pending in the Senate Committee on Finance and the House bill in the House Committee on Ways and Means.

The system proposed to be created will be financed in general from a trust fund established by a 6 per cent employee and a 6 per cent employer contribution on all wages and salaries, up to the first $3,000 a year, paid or received after Dec. 31, 1943. Included in this proposed system will be a system of public employment offices, increased old age and survivors' insurance benefits, temporary and permanent disability insurance benefits, protection to individuals in the military service, increased unemployment insurance benefits under a federalized unemployment system, maternity benefits, medical and hospitalization insurance benefits, a broadening of the basis of the existing social security program to embrace some 15,000,000 persons now excluded, such as farm workers and domestic servants, employees of nonprofit institutions, independent farmers, members of the professions and other self-employed individuals, and a unified public assistance program. There follows an analysis of those provisions of the ninety-page bill that appear to be of particular concern to medicine.

Disability Benefits Plus Medical Care

The bill broadens the existing social security coverage by providing for the payment of cash permanent disability benefits to beneficiaries. In addition to such cash benefits, the Social Security Board, through the Surgeon General of the Public Health Service, will be authorized to make provision for furnishing medical, surgical, institutional, rehabilitation or other services to disabled individuals entitled to receive insurance benefits, if such services will aid in enabling such individuals to return to gainful work. Such services, it is contemplated, will be furnished "by qualified practitioners and through governmental and nongovernmental hospitals and other institutions qualified to furnish such services." In administering the provisions of this particular section of the bill, the Surgeon General and the Social Security Board will follow as far as applicable the procedure outlined by another section of the bill relating to medical, hospitalization and related benefits generally.

Medical, Hospitalization and Related Benefits in General

Section 11 of the bill proposes to add a new title to the Social Security Act, title IX, providing for a federal system of compulsory medical and hospitalization insurance for all persons covered under the old age and survivors' insurance, and their dependents. Each insured worker and his dependent wife and children will be entitled to receive general medical, special medical, laboratory and hospitalization benefits. In addition, the system is made elastic so that it may be enlarged in its coverage to admit other beneficiaries on a voluntary basis, such as self-employed individuals and employees of states and political subdivisions.

In order to appreciate the broad scope of this new title, consideration must initially be given to the meaning of the words and phrases used in it. The term "general medical benefit" means services furnished by a legally qualified physician, including all necessary services such as can be furnished by a physician engaged in the general practice of medicine, at the office, home, hospital or elsewhere, including preventive, diagnostic and therapeutic treatment and care, and periodic physical examinations.

The term "special medical benefit" means necessary services requiring special skill or experience, furnished at the office, home, hospital or elsewhere, by a legally qualified physician who is a specialist with respect to the class of service furnished.

The term "laboratory benefit" means such necessary laboratory or related services, supplies or commodities, not provided to a hospitalized patient and not included as a part of the general or special medical benefit, as the Surgeon General of the United States Public Health Service may determine, including chemical, bacteriologic, pathologic, diagnostic and therapeutic X-ray and related laboratory services, physical therapy, special appliances prescribed by a physician, and eye glasses prescribed by a physician "or other legally qualified practitioner."

The term "hospitalization benefit" means (1) not less than $3 and not more than $6 for each day of hospitalization, not in excess of thirty days, which an individual has had in a period of hospitalization; (2) not less than $1.50 and not more than $4 for each day of hospitalization in excess of thirty in a period of hospitalization; and (3) not less than $1.50 and not more than $3 for each day of care in an institution for the care of persons suffering from chronic ailments. The exact amount of the benefit, between the minimums and maximums stated, will be fixed by the Surgeon General of the Public Health Service after consultation with the National Advisory Medical and Hospital Council to be created by the bill and after approval by the Social Security Board. In lieu of such compensation, the Surgeon General may, after approval of the Social Security Board, enter into contracts with participating hospitals for the payment of the reasonable cost of hospital service, at rates for each day of hospitalization neither less than the minimum nor more than the maximum applicable rates previously mentioned. Such payments will constitute full reimbursement, the bill provides, for the cost of essential hospital services, including the use of ward or "other least expensive facilities compatible with the proper care of the patient."

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* Prepared by the Bureau of Legal Medicine and Legislation, American Medical Association, and reprinted from the *Journal of the American Medical Association*, June 26, 1943.

Panel of Physicians to Supply Medical Care

The Surgeon General will be required to publish and otherwise make known in each area to individuals entitled to benefits the names of general practitioners who have signified their willingness or desire to participate in the insurance program. Any legally qualified physician may so participate. A beneficiary may select any physician appearing on the panel to treat him subject to the consent of the physician selected, and may change such selection in accordance with such rules and regulations as may be prescribed. The Surgeon General may set maximum limits to the number of potential beneficiaries for whom a general practitioner may undertake to furnish medical benefits. Such limits may be nationally uniform or may be adapted to take account of "relevant factors."

The services of specialists will ordinarily be available only on the advice of the general practitioner. The Surgeon General will determine what constitutes specialist services and will also determine the qualifications of physicians as specialists "in accordance with general standards previously prescribed by him after consultation with the council and utilizing standards and certifications developed by competent professional agencies."

Payments for the Services of Physicians

Payments to general practitioners may be made (1) on the basis of fees for services rendered, according to a fee schedule approved by the Surgeon General; or (2) on a per capita basis, the amount being according to the number of individuals entitled to benefits who are on the practitioner's list; or (3) on a salary basis, whole or part time; or (4) on a combination or modification of these bases. The method of payment, subject to the approval of the Surgeon General, will apparently be determined in each area in accordance with the desires of a majority of the general practitioners collaborating with the insurance program.

Payments to designated specialists may include payments on salary (whole time or part time), "per session," fee for service, per capita, or other basis, or combinations thereof. Apparently the method of payment to be adopted for specialists will be determined by the Surgeon General.

Payments for medical services may be nationally uniform or may be adapted to take account of "relevant factors." In any area where payment for the services of a general practitioner is on a per capita basis, the bill provides that the Surgeon General shall distribute on a pro rata basis among the practitioners of the area on the panel those individuals in the area who, after due notice, have failed to select a general practitioner or who, having made a selection, have been refused by the practitioner.

The bill provides that in each area the provision of general medical benefit for all individuals entitled to receive such benefit "shall be a collective responsibility of all qualified general practitioners in the area who have undertaken to furnish such benefit."

Limitations on General Medical and Laboratory Benefit

The Surgeon General and the Social Security Board may determine for any calendar year or part thereof that every individual entitled to general medical benefit may be required by the physician attending him to pay a fee with respect to the first service or with respect to each service in a "spell of sickness" or course of treatment if it is believed that such a determination is necessary and desirable to prevent or reduce abuses of entitlement to such benefits. Maximum size of such fee may be fixed by the Surgeon General and the Social Security Board at an amount estimated to be sufficient to prevent or reduce abuses and not such as to impose a substantial financial restraint against proper and needed receipt of medical benefit. Likewise the Surgeon General and the Social Security Board may limit the application of such fees to home calls, office visits or both.

Participating Hospitals

For a hospital to participate in this insurance program, it must have been approved by the Surgeon General under standards prescribed by him after consultation with the council. A hospital to be approved must provide all necessary and customary hospital services and must be found to afford professional service, personnel and equipment adequate to promote the health and safety of individuals customarily hospitalized in such institution. The Surgeon General may approve or accredit a hospital for limited varieties of cases and may accredit an institution for the care of the "chronic sick." In determining the adequacy of the professional service, personnel and equipment of any such institution, the Surgeon General may take into account the purpose of such limited accrediting, the type and size of community which the institution serves, the availability of other hospital facilities, and such other matters as he may deem relevant.

Application for and Limitation of Hospitalization Benefits

No application by an individual for hospitalization benefits will be valid with respect to any day of hospitalization if the application is filed more than ninety days after such day, or with respect to any day of hospitalization for mental or nervous disease or for tuberculosis after such diagnosis has been made. The maximum number of days in any benefit year for which any individual may be entitled to hospitalization benefit will be thirty. If, however, the funds in the special hospitalization benefit account fund to be created prove adequate, the maximum number of days may be increased to ninety by the Surgeon General and the Social Security Board, acting jointly.

Proposed Method of Administration

The Surgeon General of the Public Health Service will be authorized to take all necessary and practical steps to arrange for the availability of the medical, hospitalization and related benefits. He will be authorized to negotiate and periodically to renegotiate agreements or coöperative working arrangements with appropriate agencies of the United States, or of any state or political subdivision thereof, and with other appropriate public agencies, and with private agencies or institutions, and with private persons or groups of persons, to utilize their services and facilities and to pay fair, reasonable and equitable compensation therefor.

The methods of administration, including the methods of payment to practitioners, the bill provides, shall (1) insure the prompt and efficient care of individuals entitled to benefits; (2) promote personal relationships between physician and patient; (3) provide professional and financial incentives for the professional advancement of practitioners and encourage high standards in the quality of services furnished as benefits through the adequacy of payments to practitioners, assistance in their use of opportunities for postgraduate study, coördination among the services furnished by general practitioners, specialists, laboratory and other auxiliary services, coördination among the services furnished by practitioners, hospitals, health centers, educational, research and other institutions, and between preventive and curative services, and otherwise; (4) aid in the prevention of disease, disability and premature death, and (5) insure the provision of adequate service with the greatest economy consistent with high standards of quality.

National Advisory Medical and Hospital Council

The bill proposes the creation of a National Advisory Medical and Hospital Council, to consist of the Surgeon General of the United States Public Health Service as chairman and sixteen members appointed by him. The appointed members will be selected from panels of names submitted by the professional and other agencies and organizations concerned with medical services and education and with the operation of hospitals and from among other persons, agencies or organizations informed on the need for or provision of medical, hospital or related services and benefits. Appointed members will hold office for four years, with the terms of office staggered. The appointed members will receive compensation at the rate of $25 a day for time spent on official business of the council, and actual and necessary traveling expenses and per diem in lieu of subsistence.

This council will "advise" the Surgeon General as to (1) professional standards of quality to apply to general and special medical benefits; (2) designation of specialists; (3) methods and arrangements to stimulate and encourage the attainment of high standards through coördination of the services of general practitioners, specialists, laboratories and other auxiliary services, and through the coördination of the services of practitioners with those of educational and research institutions, hospitals and health centers, and through other useful means; (4) standards to apply to participating hospitals and to establishment and maintenance of the list of participating hospitals; (5) adequate and suitable methods and arrangements of paying for medical and hospital services; (6) studies and surveys of the services furnished by practitioners and hospitals and of the quality and adequacy of such services; (7) grants-in-aid for professional education and research projects, and (8) establishment of special advisory, technical, local or regional boards, committees, or commissions.

Relation to Workmen's Compensation Acts

The benefits provided by this bill will not be available with respect to an injury, disease or disability coming within the purview of any state or federal workmen's compensation act.

Dental, Nursing and Other Benefits

The bill devolves on the Surgeon General and the Social Security Board jointly the duty of ascertaining the most effective methods of providing dental, nursing and other needed benefits not contained in the pending bill and of determining the expected costs of such additional benefits. The bill contemplates that the Surgeon General and the Social Security Board will report the results of their findings, with recommendations as to legislation, not later than Jan. 1, 1946.

Grants-in-aid for Medical Education, Research and Prevention of Disease and Disability

The Surgeon General will be authorized to administer grants-in-aid to nonprofit institutions and agencies engaging in research or in undergraduate or postgraduate professional education. The purpose of these grants will be to encourage and aid the advancement and dissemination of knowledge and skill in providing benefits and in preventing illness, disability and premature death. Such grants-in-aid will be made with respect to each project (1) for which application has been received from a nonprofit institution or agency, stating the nature of the project and giving the reasons for the need of financial assistance in carrying it out, and (2) for which the Surgeon General finds, with the advice of the council, that the project shows promise of making valuable contributions to the education or training of persons useful to or needed in the furnishing of medical, hospital, disability, rehabilitation and related benefits or to human knowledge with respect to the cause, prevention, mitigation or methods of diagnosis and treatment of disease and disability.

This part of the program will be financed by setting aside a certain percentage of amounts expended for benefits from the Federal Social Insurance Trust Fund to be created by the bill. The amount to be set aside will equal 1 per cent of the total amount expended for benefits from the trust fund, exclusive of unemployment insurance benefits, or 2 per cent of the amount expended for benefits under title IX (relating to federal medical, hospitalization and related benefits), after benefits under that title have been payable for not less than twelve months, whichever is the lesser, in the last preceding fiscal year. The bill apparently leaves all the details with respect to these grants-in-aid to regulations to be promulgated by the Surgeon General after consultation with the council.

Self-employed Individuals

Self-employed individuals may receive the benefits of the old age, survivors, and permanent disability and medical and hospital insurance by paying into the Trust Fund an amount equal to 7 per cent of the market value of their services rendered as self-employed individuals, after Dec. 31, 1943, with respect to services in self employment after that date, but not including that part of any remuneration for employment and the market value of services in self employment in excess of $3,000 for any calendar year.

Employees of States and Local Subdivisions

The bill authorizes the Social Security Board to enter into compacts with individual states or with political subdivisions for the purpose of extending old age, survivors, and permanent disability and medical and hospitalization insurance coverage to employees of such states or political subdivisions. To finance the benefits to be provided under such compacts, the bill requires such employer to pay a social security contribution equal to 3.5 per cent of the wages paid by it after Dec. 31, 1943 and every individual beneficiary of such a compact a contribution equal to 3.5 per cent of the wages received by him after Dec. 31, 1943, excluding any amount paid or received in excess of $3,000 during any calendar year after Dec. 31, 1943.

Bill as Viewed by Senator Wagner

On the floor of the Senate, June 3, Senator Wagner described the overall objectives of his bill as follows:

"The bill establishes a nationwide system of public employment offices, to help war workers and war veterans to avail themselves of job opportunities, in private industry and on farms, throughout the country. It covers broadly the major economic hazards of average American families—the cost of medical and hospital care, and loss of income in time of unemployment, temporary sickness, permanent disability and old age. It improves the present old age insurance system and extends coverage to 15,000,000 persons now excluded, such as farm workers and domestic servants, employees of nonprofit institutions and the independent farmer, professional and small businessman. All these changes are established under a unified national system of social insurance, with one set of contributions, one set of records and reports and one set of local offices. Reinforcing the job guaranty in the Selective Service Act, the bill gives the returning veteran and his family paid-up benefit rights in every phase of this insurance protection. And, finally, the bill sets up an improved, unified system for grants-in-aid to the states for public assistance, on a variable matching basis, in place of the rigid categories under present law."

Prospect of Senate Consideration of the Bill

Senator Walter F. George, chairman of the Senate Committee on Finance before which S. 1161 is pending, has been quoted as saying that his committee cannot possibly undertake to give consideration to the bill until late in the present session of the Congress and that if that consideration is given, and if favorable action is taken by the committee, the measure will not reach the floor of the Senate until next year.

On The Home Front

Physicians who wish to subscribe to **Group Hospitalization, Inc.,** are reminded that the books are open twice a year for new members, September 1 and March 1. Subscriptions are now being received at the Society's office and should be in the hands of the Group Treasurer, Mr. Wiprud, not later than August 25.

All male students of both **George Washington University and Georgetown University Schools of Medicine** have been inducted into the military services. At George Washington University the total enrollment in the School of Medicine is 293. Of these 150 are first class privates in the Army, 75 apprentice seamen in the Navy, and 48 civilians with military status. **Colonel Philip W. Huntington** is in charge of the 2514th Service Unit of the Army. **Captain E. M. Williams,** now at the University of Virginia, is in charge of the V-12th Unit of the Navy, representing both schools.

Georgetown University School of Medicine has a total student body of 316, 220 of which are first class privates in the Army, 63 apprentice seamen in the Navy, and 33 civilians with military status. In command of the 2516th Unit of the Army is **Lt. Col. James E. Phillips.**

At the request of the **Russian Society for Cultural Relations with Foreign Countries,** new appeals are being made for contributions of medical literature. Many Soviet schools of medicine were evacuated thousands of miles to Central Asia and the Urals from Kharkov, Kiev and other occupied cities. In most cases libraries had to be left behind. The Kiev Medical Institute, for example, was moved to Chelyabinsk in the Urals, 1,300 miles away. Inquiries or gifts of medical books should be sent to Russian War Relief, Inc., 11 East 35th Street, New York 16, N. Y.

Medical officers are needed for **Federal civilian war service positions** ranging from general practice to aviation medicine. Those appointed will perform professional duties as doctors of medicine in active practice in hospitals, in dispensaries, in the field or in rural areas; or in bureaus of the Government such as the Veterans Administration, Civil Aeronautics Administration, Public Health Service, and Food and Drug Administration. There are no written tests and no age limits. Applicants for all grades must have received the degree of Doctor of Medicine from an accredited medical school. Five years of medical experience is required for the Senior Medical Officer grade, three years' experience for the Medical Officer grade, and one year of internship for Associate Medical Officer grade. Salaries range from $3,200 to $4,600 a year plus overtime pay.

Further information and application forms may be obtained from post offices, Civil Service Regional offices, and the U. S. Civil Service Commission, Washington, D. C.

Shipments valuing more than $550,000 have been donated by the **Medical and Surgical Relief Committee of America** to the U. S. Navy, the U. S. Coast Guard, the armed forces of our Allies and to welfare groups in the United States and abroad, during the three years the organization has been functioning. Of this amount more than $59,000 was donated during the past six months.

Most of the latter fund was used for sending medical supplies to the French forces in North Africa and to Little Norway in Canada. The crates of operating sets, medical kits and other supplies for the North African French are dispensed by the Fighting French Corps, the French Red Cross and the American Friends Service in Libya. Tryparsamide used to combat sleeping sickness is added to the standard complement of sulfa drugs and other essential medicines.

In July 1940 the Medical and Surgical Relief Committee was organized to gather supplies for understocked emergency stations and field hospitals crowded with bomb victims in Great Britain. As the war spread, the Committee's scope was increased to answer appeals for help from Greece, Russia, China, the Fighting French, the Royal Norwegians, missionary doctors in Africa and India, and since our entry into the war, from the United States. Beginning with a handful of philanthropic doctors in New York City, the Committee has grown to an operating membership of over 500 doctors in 44 states.

The Board of Trustees of the new **Arlington Hospital,** which should be completed by early fall, has announced the appointment of the following medical staff:

Surgery: Dr. Richard N. Sutton, *Chief;* Drs. Howard H. Strine and J. Ogle Warfield, Jr.
Ophthalmology: Dr. L. Conner Moss
Urology: Drs. Ralph M. LeComte and Herbert D. Wolff
Otorhinolaryngology: Drs. J. R. McGriff and John H. Gilligan
Orthopedics: Dr. O. Anderson Engh
Obstetrics and Gynecology: Dr. Stacy T. Noland, *Chief;* Drs. D. C. McCollum, J. Bay Jacobs, Allan E. King, William D. Terrell, James C. Waters and John deB. Wynkoop
Medicine: Dr. Weldon D. Price, *Chief;* Drs. Michael J. McInerney, Charles P. Cake and William M. Ballinger
Dermatology: Dr. John Walter Martin
Pediatrics: Dr. Robert H. Detwiler
Neurology: Dr. Antoine Schneider
Pathology: Dr. V. J. Dardinski

Superintendents of three new suburban hospitals soon to be completed have been appointed. **Mr. Benjamin W. Wright,** formerly Assistant Director of Doctors Hospital, holds this position at Arlington Hospital. **Mr. J. Dewey Lutes** is Superintendent of the Suburban Hospital at Bethesda. Mr. Lutes has had many years' experience in hospital administration, coming to Bethesda directly from the Presbyterian Hospital in Chicago. Prior to this he was Superintendent of Ravenswood Hospital, Chicago, for about ten years. **Dr. A. Kirk Besley** has just been appointed Superintendent of the Prince Georges County Hospital at Cheverly, Md. He holds the degree of Doctor of Philosophy in bacteriology from the University of Maryland.

Alexandria Hospital has been added to the list of participating member hospitals of Group Hospitalization, Inc. This hospital is approved by the Council on Medical Education of the American Medical Association for the training of interns and is approved by the American College of Surgeons as meeting, unconditionally, its minimum standards.

The new District Red Cross Blood Donor Center was opened officially at the Acacia Mutual Life Insurance Company building, 51 Louisiana Avenue, N.W., July 31. This company is donating the use of the entire third floor of the building for the Center. The donor center at the old Naval Hospital, Twenty-third and C Streets, N.W., was closed on July 31.

Dr. Raymond T. Holden resigned his office as Chairman of the Executive Board, July 21, after having served as a member of the Board since July 1, 1936 and as Chairman since July 1 of this year. Dr. Holden was commissioned an officer in the U. S. Naval Reserve, February 21, 1942, with the rank of Lieutenant Commander. Since that time he has been stationed at the Naval Dispensary in Washington. Recently he was transferred to overseas duty.

In behalf of the Medical Corps of the United States Army, **Colonel Daniel L. Borden** accepted an ambulance, a gift of the Knights of Pythias of Tidewater Virginia, at the Norfolk City Park, July 5.

Dr. Winfred Overholser will be the principal speaker, August 30, at a panel discussion sponsored jointly by the Council of Social Agencies and the Employee Counsellors' Conference of the Government. His subject will be "Health in the Capital in Wartime." This meeting is one of a series being held weekly in the Interior Auditorium for the purpose of acquainting employee counsellors, who number about 250, with the type of facilities available in the Capital for health, social welfare and recreation.

Dr. John R. Mohler, Chief of the Bureau of Animal Industry of the Department of Agriculture, retired July 31 after 46 years of service in the U. S. Government. Dr. Mohler is internationally known for his research in diseases of animals communicable to man and for his successful efforts to eradicate many of these diseases. In 1941 he was the Society's choice as speaker for the Kober Memorial Lecture, presenting a paper on "Undulant Fever." Dr. Mohler holds the degree of Doctor of Veterinary Medicine from the University of Pennsylvania and honorary degrees of Doctor of Science from the University of Pennsylvania, Iowa State College and the University of Maryland.

Dr. Raymond A. Vonderlehr, who has completed eight years' duty as Assistant Surgeon General of the U. S. Public Health Service in charge of the Division of Venereal Diseases, has been appointed Director of District No. 6 of the U.S.P.H.S. covering Puerto Rico and the Virgin Islands. The appointment was announced July 12.

Mr. Edward K. Funkhouser has been appointed Executive Secretary of the **District Tuberculosis Association,** according to an announcement made by Paul D. Sleeper, President of the Association. Mr. Funkhouser assumed his new duties July 16. For the past eighteen years he has served as Executive Secretary of the Passaic County, New Jersey, Tuberculosis and Health Association.

BOOKS RECEIVED FOR REVIEW

Methods of Treatment, 8th ed. LOGAN CLENDENING, M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals, AND EDWARD H. HASHINGER, A.B., M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals; Attending Physician, St. Luke's Hospital, Kansas City, Mo. Pp. 1033, with 138 illustrations. Price, cloth, $10.00. St. Louis: Mosby, 1943.

Collected Reprints of the Grantees of the National Foundation for Infantile Paralysis, 1942, Volume III. New York: National Foundation for Infantile Paralysis, Inc., 120 Broadway.

Rehabilitation of the War Injured: A Symposium. WILLIAM BROWN DOHERTY, M.D., AND DAGOBERT D. RUNES, PH. D., Editors. Pp. 684, illustrated. Price, cloth, $10.00. New York: Philosophical Library, Inc., 1943.

The Boy Sex Offender and His Later Career. LEWIS J. DOSHAY, M.D., PH.D., Psychiatrist, Children's Courts, New York City; formerly Senior Assistant Physician, Manhattan State Hospital, New York, and Attending Specialist in Neuropsychiatry, U. S. Veterans Hospital, New York City. Pp. 206. Price, cloth, $3.50. New York: Grune & Stratton, 1943.

A Synopsis of Clinical Syphilis. JAMES KIRBY HOWLES, B.S., M.D., M.M.S., Professor of Dermatology and Syphilology, and Director of the Department, Louisiana State University School of Medicine; Senior Visiting Physician, Charity Hospital of Louisiana at New Orleans; Visiting Physician, French Hospital, Mercy Hospital, Hotel Dieu, Southern Baptist Hospital and Touro Infirmary. Pp. 671, with 121 text illustrations and 2 color plates. Price, cloth, $6.00. St. Louis: Mosby, 1943.

Medical Malpractice. LOUIS J. REGAN, M.D., LL.B., Member, State Bar of California. Pp. 256. Price, cloth, $5.00. St. Louis: Mosby, 1943.

BOOK REVIEWS

Le Problème du Cancer. CHARLES OBERLING. Pp. 298. Montreal: L'Arbre, 1942.

Oberling has brought our knowledge of cancer up-to-date in this small, rather unpretentious volume which is published in the collection "France Forever." It is the fruit of ten years or more of prodigious work in the field in many places and on three continents. It might almost be said that Oberling represents the new school of peripatetics, and it is hoped that his work in Teheran will open still further vistas in medicine.

Oberling concentrates upon the problem of cancer and does so much more from the biologic than from the medical standpoint. The volume undertakes a study of cancer from the various standpoints of genetics: radiant energy, parasitology, chemistry and hormonology, and concentrates finally upon the fascinating field of virus etiology which, according to him, is the most satisfactory explanation advanced up to the present time. To the objection that the contagiousness of cancer has not been shown, he states succinctly, "The contagiousness of an infection depends upon the transmissibility of the germ and on the receptivity of the organism that it encounters. If one of these . . . conditions is lacking the chain is broken and contagion does not take place." Oberling defends this thesis with every bit of positive evidence at his command and with explanations for the gaps in our knowledge, pointing out where the work of the future should be concentrating.

It might be supposed that a book dealing with such fundamental biologic phenomena would be heavy reading, but it is quite the opposite, since the propositions are so clearly stated that even the reader with only a moderate acquaintance with the language encounters little difficulty.

The idea of a virus etiology is so new that it may come as a surprise or even a shock, but in the final apologia Oberling states, "One is never wrong in allowing himself to be guided by a hypothesis, as long as it is not in contradiction with the observed facts, and it is the wealth of researches that the hypothesis elicits that best proves its value. Submitted to this proof, the conception of cancer as a virus disease does not have to stand in awe of judgment."

W. FREEMAN, M.D.

Operative Oral Surgery, 2nd ed. LEO WINTER, D.D.S., M.D., F.A.C.D., F.A.C.S., Sc.D. (HON.), LL.D., Professor of Oral Surgery, New York University; Director, Oral and Minor Surgery Clinic, New York University College of Dentistry; Visiting Oral Surgeon in Charge, Bellevue Hospital; Consulting Oral Surgeon, Montefiore Hospital; Chief of Dental Clinic, New York University College of Medicine; Fellow, New York Academy of Medicine. Pp. 1074, with 1211 illustrations. St. Louis: Mosby, 1943.

Judging from the Preface, the reason for the present new edition is the war. But the author unfortunately says (p. 7), "Wounds as a result of war casualties differ but slightly, if at all, from traumatic wounds occurring in civil life." With this statement military oral surgeons simply do not agree.

A bibliography is neatly avoided by the statement (p. 7) that a complete one "would be impossible, and, unless complete, would be useless." Nevertheless, on page 1055 are listed more than a hundred "References" without relevance to the text and with no indication of the scientific value of the material. The relation of illustration to discussion is out of balance, but the pictures generally use a better language than the text. The irritating and persistent misuse of the word "pathology" for disease or infection is an undergraduate error, but equally inexcusable is the term "gland" for "node" (p. 211 and elsewhere).

In the discussion of dry socket we read, "I would describe the process as a localized osteomyelitis. The entire bony structure exfoliates in time;" (p. 193), and on the next page, "Within eight to ten days the patient should have relief and normal granulating tissue should be filling in the base of the socket, followed by an uneventful recovery." Does the author mean that his treatment brings about the exfoliation of the entire bony structure before this eight- to ten-day period?

Although the discussion and the illustrations of cysts are voluminous, there is no account of the open method advocated by Partsch in 1892, a non-deforming treatment widely accepted. Countless case records confirm the efficacy of the Partsch treatment.

The entire chapter on the topic, "Surgical Correction of Pyorrhea Alveolaris" covers only one scanty page of text and in addition to the brevity of his discussion of this subject his illustration (p. 580) indicates that this type of work is unfamiliar to him. In the drawing illustrating the incision for gingivectomy is shown a knife blade with which it would not be possible to make the necessary incisions, and the position of the incision is wrong.

Contrary to the opinions implied by the author, the mucous cyst does not cause blocking of the lymph vessels (p. 233); pus can be expected to drain "upstream" (p. 262); and clinically, it (torus palatinus) does not resemble a palatal abscess (p. 214).

In the chapter on fractures much of the space given to redundant illustration of the Winter arch might have been omitted or used instead to demonstrate other and more widely accepted methods of fracture treatment.

Dr. Winter has degrees in both dentistry and medicine and owes some responsibility to the older profession for his discussion of such topics as malignancies and blood dyscrasias. We do not agree that such deficiency diseases as avitaminoses and scurvy (p. 257) should be included in a chapter on blood dyscrasias.

In the discussion of Ludwig's angina, he advises making "liberating incisions through the deep fascia" (p. 207). Although such thoughts can be found elsewhere, sound surgical judgment prohibits such "heroic" treatment.

In spite of his exploitative reference to the war, it is evident that the author conceives the value of his work to be as a text or reference book and a clinical guide in the practice of oral surgery. It is for just such purposes that this book is inadequate and unsatisfactory.

HARRY KAPLAN, D.D.S.

WILLIAM SAWYER NEWELL, M.D. F.A.C.S.

(1872–1943)

Dr. William Sawyer Newell, ophthalmologist, who had practiced in Washington for almost half a century, died June 22, 1943, at Garfield Memorial Hospital following a long illness. For many years he had maintained his office at 1029 Vermont Avenue, N.W.

Dr. Newell was born in Indiana, October 22, 1872. He received his degree in medicine from Columbian University (now George Washington University) in 1895 and began active practice in the District of Columbia the same year. Subsequently he did postgraduate work in ophthalmology at the Manhattan Eye, Ear and Throat Hospital, New York. He was ophthalmic surgeon to the Central Dispensary and Emergency Hospital.

He was a Fellow of the American College of Surgeons and held membership in the American Medical Association. He was elected a member of the Medical Association of the District of Columbia in 1897 and became affiliated with the Medical Society in 1902. On January 1, 1938, he became a Life Member of the Society.

Surviving is his wife, Mrs. M. Hughes Newell, who resides at 1355 Kennedy Street, N.W.

(*Continued from page 313*)

practitioners according to their location. Specialists qualifying for the list must be privileged to practice their specialties in a Class A hospital.

Another list of physicians has recently been made available to the Bureau by the Committee on Medical Service for the District of Columbia. Physicians have been listed according to the districts in which they have offices and where they reside. There are twenty-five such districts. In the event of a serious emergency, such as an epidemic, these physicians have agreed to respond if called upon. It is hoped that this list will never have to be put to real use but it will be of great value if needed.

At present the Bureau has 245 subscribers, not including several applications which are pending. Indications are that the number of subscribers will increase substantially in the next year. The Society, which sponsored Medical Bureau, can be well pleased with the Bureau's progress.

* * *

More Paper Work

At the request of some of our members, the Secretary of the Medical Society recently investigated the procedure which must be followed to obtain additional points for rationed food commodities. For some time past physicians have given patients in need of special or more liberal diets, statements that they required additional meat or other rationed food. In one instance an obstetrician had forms printed on which he inserted the name and address of the patient and the kind and amount of food needed, to which he appended his signature. This form of "prescription" was with few exceptions accepted by local ration boards. However, on July 8, 1943, Ration Order No. 13 and Ration Order No. 16 were amended to provide that the physician must set forth in writing on the patient's application form the reason why the applicant needs the additional ration points and why he cannot use unrationed foods instead.

In a communication addressed to Mr. Heath C. Moorman, District Rationing Officer, the Secretary pointed out that while the proposed procedure seemed simple, in practice it would be most inconvenient. Under the new requirements the ill person must first obtain an application form from his local ration board. After he has completed it he must return to his doctor who must, in a written statement on the back of the form, give his professional opinion in regard to the patient's needs. The applicant must then return the form to his ration board.

Doctors are not always available to their patients these days and very frequently are too busy to fill out forms until there is a lull in their practices. It is conceivable that the patient might have to go to his doctor's office more than once before he obtains the statement. If this procedure were followed by mail, there might be still more delay. In the meantime, the patient would not be getting the food he needs.

Mr. Moorman was asked to take this matter up with the national office of OPA requesting that doctors be permitted to make out separate statements to be given to patients at the time the dietary needs are determined or to be mailed to them and attached to their applications.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

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". . . Present Needs and Future Requirements"

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THOSE of us whose privilege it was to serve our country during the first World War and to observe in the past few years the gradual destruction of principles for which we fought now face a new world conflict. Those of us who have an opportunity now to participate in the defense of our nation must turn our attention to a study of medical needs during the present emergency and to planning for the postwar world. Such planning should consider the rehabilitation of mankind and the establishment of a permanent peace which will assure to every man, woman and child freedom of thought, freedom of action and liberty. Hate, despotism and tyranny should have no place in a postwar world dedicated to humanity. Medicine has a fundamental role and will assume an integral part in the establishment of enduring world peace. Without healthy minds and bodies, no nation of civilized men can survive or prosper.

The government of the United States was founded on certain principles which establish our present mode of living, thinking and acting. These principles were written into our Constitution by Thomas Jefferson, the anniversary of whose two hundredth birthday we recently celebrated. The dedication of a memorial to him, in the city of Washington, pays tribute to a great man who wrote, "We hold these truths to be self evident: that all men are created equal, that they are endowed by their Creator with certain unalienable rights; among these are life, liberty and the pursuit of happiness." He also gave expression to a guiding principle, on which a sound program of medical planning is based, when he said, "I have sworn upon the altar of God eternal hostility against every form of tyranny over the mind of man." The achievements of the medical profession in our country are an example of the wisdom of such freedom. By scientific progress in the control of infectious diseases, including the almost complete eradication of a few diseases by prophylactic inoculations, prevention of accidents, establishment of adequate public health measures and development of better curative treatments, many years have been added to the span of life.

The present global war, with its far-flung battle fronts, has created many new and unexpected problems and has placed heavy demands on the medical resources of our country. As the war progresses in duration and in intensity, these demands will be greatly multiplied. We must be prepared to meet medical problems as they arise, to supply the immediate needs and to formulate plans for effective service under changing conditions. In formulating such plans the American Medical Association is not an isolated unit. For the greatest good, the combined and coöperative efforts of all organizations interested in medical care must be enlisted as participants in the program. The American Medical Association, the American College of Surgeons, the American College of Physicians, the American Dental Association, the American Nurses Association, the Association of American Medical Colleges, the United States Public Health Service, the Medical Corps of the Army and Navy, the Procurement and Assignment Service are vitally interested in the perfection of plans which will furnish better and more evenly distributed medical service for our people. I know of no time in the history of American medicine when such an undertaking could be more effectively or usefully initiated than now!

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* Read before the House of Delegates of the American Medical Association, June 8, 1943.

MEDICAL EDUCATION

The maintenance of an acceptable program of medical education is an essential part of the war effort. To meet present military and civilian needs, the Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges have endorsed a continuous program of medical education and training in most of the medical colleges of the United States. With this acceleration of the educational program a medical student completes a four-year course of study in three calendar years. The establishment of this program has thrown an additional burden on already depleted faculties of medicine. Much less time can be given to investigate work, which is an important contribution of these institutions to the advancement of medical teaching and knowledge.

The lowering of the draft age to 18 years and the establishment of Specialized Collegiate Training Programs by the Army and Navy for premedical and medical students place further responsibilities on the members of faculties of medicine. The selection and assignment of students to various courses and institutions, together with the interruption of study by the fulfilment of a thirteen-week military training program for those in the Army, still further complicate a difficult situation.

Provision has not been made for the education and training of doctors for civilian practice. Approximately 20 per cent of the facilities of each medical school can be utilized for the training of women and men physically disqualified for military duty and a few deferred by Selective Service. From these sources, civilian and other nongovernmental needs must be met. With the graduation of approximately 6,000 students each nine months, it is estimated that 1,200 can be used as replacements for civilian needs. This will be increased by five or six hundred physicians who are being retired from the military services each year. Most physicians who serve civilian needs are over 45 years of age; consequently the expected mortality will be high, amounting to 2,500 or more each year. Plans should be formulated now for the better utilization of this group when the necessity arises.

SUPPLYING CIVILIAN NEEDS

The rapid expansion of essential war industries has necessitated an unpredictable and unexpected increase in the resident population about many of these plants. With such a rapid increase in population, unusual demands have been made for housing, sanitation and medical care. In some localities these needs could not be immediately supplied, thus causing acute distress. To formulate plans and recommendations for the handling of such emergencies, the War Participation Committee of the American Medical Association, in conference with the United States Public Health Service and the Procurement and Assignment Service, agreed on certain methods of procedure which could be utilized to meet these emergencies. These recommendations have been published in *The Journal of the American Medical Association* and were sent to the department of public health in every state and to every state chairman of the Procurement and Assignment Service.

Much has been said of the importance of redistribution of physicians throughout the United States; indeed, some have urged the creation of a governmental agency to supply medical care to all who require it. When the medical needs of a community cannot be met at a local or state level, the state medical society may request the central office of the Procurement and Assignment Service, with the help of the United States Public Health Service, to supply the need by relocating physicians. An attempt is first made to relocate physicians within the state for such service; when this is not possible, they are obtained from other states. For the period ended March 31, 1943 thirty-three states reported to the Procurement and Assignment Agency 692 relocations. During 1942 and for the first quarter of 1943 a total of 866 doctors were relocated, not all of these by the Procurement and Assignment Service. Just now, according to the best information available, there is need for approximately 300 additional physicians to supply medical needs in 198 areas. The United States Public Health Service has been most coöperative in helping to supply urgent needs in those communities in which the local and state medical societies and the Procurement and Assignment Service were unable to give immediate assistance. The Public Health Service assumes this responsibility as an emergency measure, and physicians so assigned are under the direction of the state department of public health. By this procedure areas which required medical service have been supplied with physicians sufficient to meet their needs. This has been accomplished, furthermore, without gross violation of the rights of the individual states to regulate medical practice, of the rights of physicians who have entered military service to retain the practices that they have developed over the years, and of the rights of the patients to receive the medical care that they required.

MILITARY PERSONNEL

The American Medical Association has a continuing interest in every physician who has joined the military forces. Our obligation to keep physicians informed concerning matters of military importance is the publication in each issue of *The Journal*, under the special heading "Medicine and the War," of the activities of various agencies in national defense. Scientific achievements, as related to war, are published in *The Journal* as well as in *War Medicine*.

In view of the emergency, all large medical meetings have been postponed for the duration of the war. Previously medical meetings served to supply short postgraduate courses for many members. The discontinuance of these meetings created a new obligation for organized medicine. With the approval of the Surgeons General of the Army, the Navy and the United States Public Health Service, the American Medical Association, in coöperation with the American College of Surgeons and the American College of Physicians, is now offering a series of "Wartime Graduate Medical Meetings" to all service hospitals of the Army and Navy over the entire United States. The committee in charge of this program has the help of a large group of consultants in special medical fields, as well as the aid of most medical schools. The organization of a faculty for graduate medical training contemplates making available to military organizations various types of medical instruction conducted in the form of lectures, clinics, round table discussions and ward rounds. The program consists of thirty or more different subjects, from which each organization may choose six or eight for presentation by experts. Thus medical leadership again proves itself alert to the needs of the hour.

The Procurement and Assignment Service

Before the declaration of war, the Committee on Medical Preparedness of the American Medical Association had prepared a roster of all physicians of the United States with detailed information relative to their training, their professional qualifications and their scientific achievements, and a statement as to their availability for military service. With the establishment in October 1941, by executive order of the President of the United States, of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, the accumulated data of the Committee on Medical Preparedness became available for the beginning of this work. Shortly after the establishment of this service and before either an adequate secretarial staff or permanent quarters could be obtained, and before members of the board could become fully acquainted with the problems involved, war was declared! With the declaration of war there was a request from the Surgeon General of the Army for the recruitment of a large number of physicians for duty with the medical corps. To supply this demand the only available data were those furnished by the Committee on Medical Preparedness. During the active stage of supplying this need it soon became evident that the voluntary enlistment of physicians would deprive many communities of essential medical service. A committee on the Allocation of Personnel was created to determine the distribution and effectiveness of the available physicians and dentists in each state and to establish a measure whereby the medical and dental needs of each state could be equally and fairly adjusted. With the aid of the United States Public Health Service, statistical data were accumulated and after many conferences a quota of one physician to fifteen hundred persons was established.

As a result of these investigations it soon became evident that many states had surpassed their quotas of physicians and dentists, while other states were far behind their allotment. When war was declared 13,000 physicians were on duty with the Army and Navy. During 1942 this was increased to approximately 42,000; the requirements had been met. During 1943 approximately 11,000 additional physicians will be required, representing about all that can safely be spared from civil practice. According to the quota system previously established, this number must be drawn from thirty-four states. There are only fifteen states which must yet supply more than 100 physicians each. This does not mean that recruitment will be discontinued from states without quotas for 1943. Certain large cities in these states have a physician-population ratio greater than the standard accepted. These cities will be called on either to furnish physicians for communities within that state which are in need of doctors or to declare their younger men available for military duty.

The recruitment program is being pushed now in some five or six states that are a little backward about supplying their proportion of physicians. While the enlistments just now are behind schedule, I am convinced that we still have enough available patriotic physicians to supply the needs of our armed forces on a voluntary enlistment program. Physicians have never failed to respond in an emergency and they will not fail now.

The Procurement and Assignment Service is the only federal agency directly concerned in maintaining a sufficient number of physicians in civil practice to maintain medical education at its present level, to supply the medical needs of industry, and to furnish medical care for the civilian population. Medicine is honored in being the only group in our population with such a responsibility assigned to its own members. This activity has been possible only through the coöperation of local and state chairmen of the Procurement and Assignment Service with the directing board. The seriousness and earnestness with which these men have performed their duties is a source of gratification. The criticism aimed at the Procurement and Assignment Service for alleged mistakes or deficiencies has usually emanated from sources ignorant of its accomplishments or seeking to promote disruption in medical affairs. Such criticisms have in most instances been made without any investigation of the truth or falsity of the claims. As a member of this board I feel that it has performed a creditable task; its accomplishments have been achieved through the voluntary effort of doctors and it will continue in the future, as it has in the past, to meet honestly and fearlessly the obligations placed on it by the President of the United States.

PLANNING FOR POSTWAR MEDICAL SERVICES

After the cessation of hostilities the American Medical Association, with its 123,000 members, faces the obligation of directing the intelligent planning and continuation of procedures which can be utilized in the rehabilitation of the health and medical needs of our people and, through other agencies, made available to the countries of our allies. Problems will arise in this country that will need serious consideration. No doubt the greatest challenge to the medical profession that will come to us and to other agencies responsible for the readjustment that must take place after the war concerns the reabsorption into medical practice of doctors who will return from military service. During the past two years, through my connection with the American Medical Association, the American College of Physicians and the Procurement and Assignment Agency, it has been clearly shown that many communities, particularly those in rural districts, have suffered because of an uneven distribution of public health facilities, hospital beds and medical personnel. We should now be planning methods for overcoming these inequalities. Our present system for the education and training of medical students necessitates some provision which will enable them to go to rural communities and to practice there the type of medicine for which they have been trained. Arrangements may be developed whereby such communities can establish medical centers through which necessary hospital and laboratory facilities for the diagnosis and treatment of disease will be available for all civilian needs. The Beveridge plan and the report of the National Resources Planning Board indicate that the trend of medical practice inclines toward the establishment of the hospital and the medical center as the sources for distribution of medical care. The present emergency has accentuated the needs for such an arrangement. Even now in areas of great distress the local profession, in coöperation with the United States Public Health Service and other federal agencies, can arrange for the establishment of such facilities for the use of these communities.

It will be an obligation of the medical profession to provide for the physicians who return from military duty an opportunity to have refresher courses or postgraduate training which will bring them up to date on the newer methods of diagnosis and treatment which have been developed during their military service. No doubt the government will recognize its obligation in making such provisions possible. The general practice of medicine will require more physicians than are now engaged in such service. The development of a community hospital service staffed with an adequate number of specialists capable of administering to the needs of a large number of people would make more physicians available to provide general medical service for the community.

The successful completion of such a program cannot be accomplished by the medical profession alone. Physicians, dentists, nurses, public health officials, hospital administrators and technicians, as well as governmental agencies interested in the health needs of a community, must coöperate in its development. Such a coöperative group can plan for the essential needs and for the proper distribution of medical care so that the greatest good can be achieved.

The maintenance of the high standards of medical education which now prevail, reached through the continuous striving of medical leaders, together with ample provision for medical research, is fundamental to continued medical progress. Just now most research is concerned with problems directly related to national defense. The results of some of this can be utilized in civilian life, such as the advancement in chemotherapy, the study of virus diseases and tropical medicine. The development of new drugs for the treatment of disease, and particularly the results of research in aviation, are only a few of these benefits. There is, and will be for the duration, a diminution in investigation concerning many diseases which are constantly with us, such as arteriosclerosis, heart disease, arthritis, cancer and mental disease. Facilities and personnel must be provided to institutions and laboratories for the resumption of studies on these and othre unsolved problems directly affecting the health of our people. Stimulation to undertake such work must be furnished by the medical profession to many of those returning from military service war-weary and exhausted. The time is not too soon for those who are farsighted to survey the field and to lay the lines of attack on these unsolved problems.

A committee on Postwar Medical Planning of the American Medical Association working in coöperation with similar committees from the American College of Surgeons, the American College of Physicians and other well recognized organizations should now begin to formulate plans whereby the facilities of all groups who occupy a vital part in the rendering of medical care can be most efficiently applied. When the war is over there can be offered to the people a carefully designed technic for the medical rehabilitation of a war-sick people. There are many agencies useful in preparing such a program which undoubtedly will help in an undertaking of this nature.

Admiral McIntire pointed out in a recent address that many physicians who are now members of the Medical Corps of the Army or Navy will continue in these services long after the war is over, to meet the medical needs of peoples all over the world. Medical education in most of the Axis and Axis-dominated countries has either ceased or progressed at an extremely low level during this war. Medical teaching in some of the countries of our Allies has been continued under serious military stresses. The medical profession of this country may be called on after the war to furnish teachers, instructors and practitioners to many countries to aid in the care of those stricken with disease. We must be prepared to meet the demand.

Poverty, hunger and disease know no bounds. Let us recognize our humanitarian obligation and duty, as representatives of a nation which possesses medical and other resources superior to those of any other nation in the world, to make our talents available in this emergency. Let us coöperate with all related organizations and governmental agencies interested in postwar rehabilitation to help in achieving the restoration of health and hope to a world suffering the devastating effects of a ruthless war. Such an undertaking is one of the essentials of an abiding peace. To this end the medical profession dedicates itself until the world shall again be progressing peacefully on the paths of human advancement.

THE SURGICAL TREATMENT OF THROMBOSIS OF PERIPHERAL VEINS

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OUR attitude toward the treatment of peripheral venous thrombosis has changed. This has come about largely because of a better understanding of the local pathology of venous thrombosis and because of the recognition of the danger of pulmonary embolism in certain types. This has led to greater interest in the prevention of venous thrombosis and in more active treatment for the purpose of avoiding its dire consequences. The excellent results of surgical treatment have in turn provided a stimulus for the development of methods for the early diagnosis.

An attempt to ascertain the incidence of peripheral venous thrombosis and pulmonary embolism has proved quite difficult. The reported statistical studies show great variation. The incidence of peripheral venous thrombosis in two large series of postoperative cases[1, 2] was 0.6 per cent and 0.7 per cent respectively. These figures are in startling contrast to reports based on autopsy material. Rosenthal[3] reported an incidence of 13.4 per cent of thrombosis in 1,000 autopsies. The main reason for such a great difference must be that the autopsy material includes a group of cases in which the tendency to venous thrombosis is greater than in postoperative patients. The incidence of venous thrombosis is especially high in middle-aged and older patients. Hunter et al[4] discovered thrombi in the deep veins of the lower extremities in 52.7 per cent of 351 unselected autopsies in cases of patients past middle age who had been bedridden for varying periods before death. The incidence of pulmonary embolism in 172,888 postoperative patients at the Mayo Clinic[2] was 0.5 per cent. As in the case of venous thrombosis this is in contrast to the frequency of the condition in a more inclusive group; the incidence reported by Rosenthal[3] was 7.6 per cent. Presumably, this is to be explained by the fact that the majority of cases of pulmonary embolism occur in nonsurgical patients. Hampton and Castleman[5] found that in 370 cases of pulmonary embolism 60 per cent were medical patients. The incidence is especially high in patients with heart disease. In the series reported by Hampton and Castleman, 30 per cent of the cases represented patients with heart disease. Further, Hines and Hunt[6] found pulmonary infarction in 35 per cent of 234 necropsies of patients who died mainly as the result of cardiac disease. Of importance for our present discussion is the fact that the large majority of cases of pulmonary embolism have their origin in thrombosis of the veins of the lower extremities.[5, 7]

Classification of cases of peripheral venous thrombosis is difficult mainly because the fundamental causes of intravascular clotting are imperfectly understood. However, there are several clearly defined clinical types, including acute thrombophlebitis, traumatic venous thrombosis, and stasis thrombosis. Although these types can be recognized clinically, the treatment must vary not only with the type but also with other factors, particularly the location and extent of the thrombosis, the tendency it shows to propagate, the age and general condition of the patient, and the presence of pulmonary embolism. Our chief objects in treatment are directed toward limiting the extent of the thrombosis, restoring function in the affected limb, and preventing pulmonary embolism. The methods of accomplishing these objects can best be demonstrated by means of illustrative cases.

ILLUSTRATIVE CASES

Case 1.—*Acute Femoro-iliac Thrombophlebitis Treated by Lumbar Sympathetic Block with Procaine.*

A colored female, aged 23, had a normal delivery at term on April 22, 1943. The puerperium was normal and she left the hospital on the eighth day. On May 3, 1943 there was an acute onset of pain at the inner aspect of the upper part of the left thigh, accompanied by chills and fever, followed by the rapid development of generalized pain and swelling in the left lower extremity. The symptoms persisted, and the patient was readmitted to the hospital on May 29, 1943. The temperature was 101°F., the pulse rate was 120, and the respiratory rate 20. Moderate swelling of entire left lower extremity was present with tenderness along the course of the femoral vein, and there were enlarged inguinal lymph nodes. The white blood cell count was 7500. Left lumbar sympathetic block with 1 per cent procaine hydrochloride was performed on the day of admission. Immediate relief of pain followed. The temperature and pulse rate were normal within 12 hours, and there was rapid relief of the edema without recurrence of the symptoms. The patient was discharged from the hospital wearing a pressure bandage on June 13, 1943.

Comment on Case 1.—This case illustrates one of the common types of thrombosis of the deep veins of the lower extremity. It involves most frequently the upper part of the femoral and the external iliac vein. Apparently thrombosis is preceded by regional lymphangitis, lymphadenitis and phlebitis. The acute onset in this case, with chills, fever, and signs of local inflammation, and the accompanying generalized pain in the extremity and rapidly developing edema are typical findings in acute femoro-iliac thrombophlebitis. Usually there is leukocytosis in such cases. In this case the leukocyte count was not recorded until 2 weeks after the onset, at which time it was normal.

The essential pathology[8] in acute thrombophlebitis consists of inflammation of the vein wall and intravascular clotting, the resulting thrombus being affixed to the vein wall. Reflex spasm of all the vessels of the involved extremity is initiated by the phlebitis and intensified by the thrombosis and occlusion of a principal vein. Edema results from a combination of the effects of vasospasm, anoxemia, obstruction of the main vein, and slowing of the lymphatic flow.

Since so much of the symptomatology of acute thrombophlebitis is due to vasospasm, the relief of this condition brings about prompt amelioration of symptoms.[9] Fortunately this can be readily accomplished by temporary interruption of the sympathetic pathways supplying the vessels of the lower extremity by means of procaine injection along the lumbar sympathetic chain of the affected side. In the case reported a single injection of procaine sufficed. In those cases in which there is recurrence or persistence of symptoms the lumbar sympathetic block must be repeated at 12-hour intervals. After recovery from the acute phase of the illness, when the patient resumes activity, there may be edema of the affected extremity. This is anticipated, and the wearing of a compression bandage is advised until the extent of the edema can be determined.

It is often stated[7, 10] that pulmonary embolism rarely complicates this type of acute thrombophlebitis. Generally speaking this is true, but in certain instances embolism does occur. This usually results when a fresh thrombus is engrafted on the initial thrombus. The fresh thrombus propagates upward into the uninflamed portion of the iliac vein and may be dislodged when it reaches the common iliac vein or the inferior vena cava. We have recently seen 3 instances of this kind, in which there was fatal pulmonary embolism. In each case there was warning that propagation of the thrombus was taking place by the appearance of edema without acute symptoms of thrombophlebitis in the previously unaffected extremity. In this type of case surgical exploration of the iliac vessels should be performed with a view to appropriate ligation of the iliac veins or inferior vena cava.

Case 2.—*Propagating Thrombosis of Deep Veins of Leg with Pulmonary Embolism, Following Open Reduction of Fracture of Patella, Treated by Ligation of Femoral Vein.* A white female, aged 60, had a fracture of the left patella on November 19, 1942 with open reduction on November 24. Convalescence was uneventful until January 7, 1943, when she developed pain in the right side of the chest and cough. Mild fever and slight tachycardia were present for 5 days. The condition was again quiescent until January 22, 1943, when pain in the left side of the chest and exacerbation of the cough developed. The temperature was 102°F., the pulse rate was 110, and the respiratory rate 20. The left leg was swollen and tender at the calf, popliteal space, and lower part of the thigh. Homans' sign was positive. The diagnosis then was thrombosis of the deep veins of the calf with extension into the lower portion of the femoral vein and multiple pulmonary embolism. On January 23 exploration of the femoral vein at the femoral triangle showed that the thrombosis had not extended to this point. The femoral vein was doubly ligated just distal to the entrance of the saphenous vein (fig. 1). On January 24 an X-ray film of the chest confirmed the presence of pulmonary infarcts in the upper part of the right lung and at the base of the left lung. The temperature and pulse rate were elevated for 6 days after operation. Convalescence otherwise was uneventful without increase in the swelling of the leg following ligation. The patient was out of bed from February 9, 1943, wearing a thigh-length elastic stocking.

Comment on Case 2.—This case illustrates so-called "silent" thrombosis beginning in the deep veins of the calf. Actually the condition is not "silent" but is merely not detected by routine examination. In this type of case disease of the vein itself is not the initial cause of the thrombosis. Stasis resulting from immobilization or disuse and probably other factors that are less well understood cause the intravascular clotting. The intima of the thrombosed vein may remain intact for some days. The clot therefore is not firmly attached to the vein wall. Rapid propagation of the thrombus is favored by the same factors which initiate clotting. As the thrombus extends into veins of larger caliber, part or all of it may be swept into the circulation and carried to the lungs. The whole process tends readily to be repeated and with repetition carries increasing danger of death from pulmonary embolism.[2]

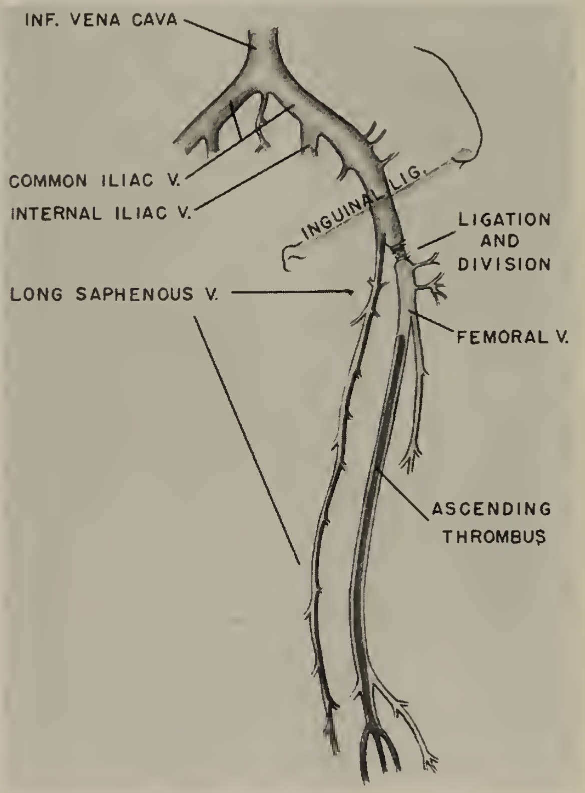

FIG. 1. Propagating thrombosis of deep veins of leg with pulmonary embolism, following open reduction of fracture of patella, treated by ligation of femoral vein.

All patients who are bedridden for long periods are candidates for this type of thrombosis. This is particularly true in the presence of such predisposing factors as fixation of the lower extremity, advanced age, heart failure, severe debility, severe anemia, malignant neoplasm, and abdominal operation. Repeated careful examination of the lower extremities usually permits early detection of the thrombosis. The examination should include comparison of the size of the two extremities to determine the presence of unilateral swelling. A search should be made for dilated superficial veins. Abnormal coldness of one foot may be a subjective or objective finding. Careful palpation along the course of the superficial and deep veins of the foot, leg and thigh is important to elicit tenderness or abnormal firmness. Forcible dorsiflexion of the foot may cause pain in the calf or popliteal space (Homans' sign). The signs most commonly present in cases of thrombosis of the deep veins of the calf are tenderness of the calf muscles and a positive Homans' sign. However, these signs may be found in other conditions, and in doubtful cases a venogram of the tibial vessels may be the only means of making sure whether or not there is venous occlusion.

Treatment is directed toward limitation of the extent of propagation of the thrombus and prevention of pulmonary embolism. This is accomplished satisfactorily by ligation of the vein above the level of thrombosis, where the vein wall is normal and at a point just distal to a large tributary. Although ligation proved adequate in this case, it seems preferable to divide the vein between ligatures. Following the operation the limb should be elevated above the level of the heart, and active motion should be encouraged immediately. The patient may be allowed out of bed after about 8 days. An elastic stocking is worn to minimize edema.

Case 3.—*Thrombosis of Tibial Vessels Propagating to Iliac Veins, Treated by Thrombectomy, Ligation and Division of Femoral Vein.*

A white male, aged 63, was admitted to the hospital on November 3, 1941 for treatment of carcinoma of the esophagus. Gastrostomy was performed on November 24 with normal postoperative recovery, and the patient was ambulatory after 10 days. He first noticed pain in the right calf and swelling of the leg on December 26. The temperature, pulse rate, and respiratory rate were normal. Pitting edema of the right leg, tenderness of the calf and popliteal space, and positive Homans' sign were noted. One day later swelling of the thigh and tenderness over the femoral vein to the inguinal ligament appeared. On December 27 operative exploration of the femoral vein at the femoral triangle was done. The vein wall was normal in appearance, although the lumen was completely filled with thrombus. The saphenous vein was not thrombosed. The femoral vein was incised below the saphenous, and a thrombus 6 inches long was aspirated from above the incision (fig. 2). Free bleeding occurred from the saphenous vein and the upper segment of the femoral vein after removal of the clot. The vein was then doubly ligated and divided below the saphenous vein with prompt relief of pain after the operation. Convalescence was uneventful. Moderate edema persisted in the right lower extremity until the time of death from carcinoma on March 13, 1942.

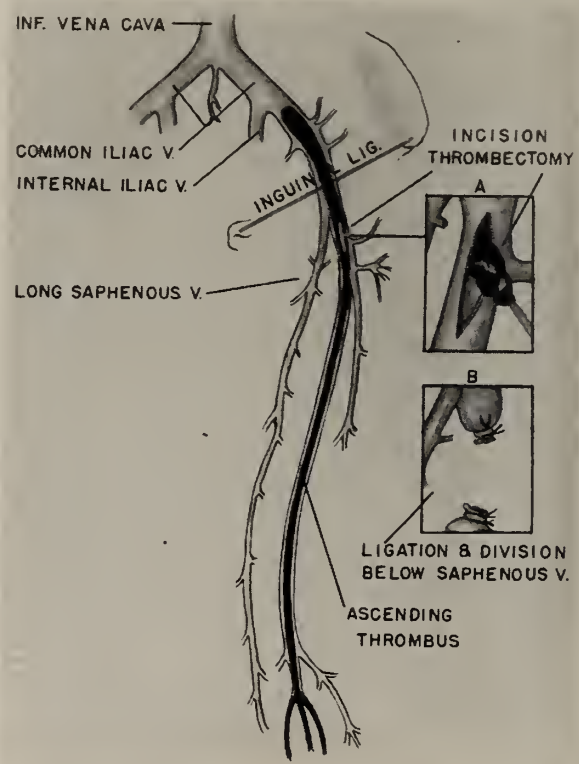

Fig. 2. Thrombosis of tibial vessels propagating to iliac veins, treated by thrombectomy, ligation and division of femoral vein.

Comment on Case 3.—In this case the thrombosis developed and extended very rapidly, and pulmonary embolism was anticipated. The normal external appearance of the femoral vein and the absence of regional lymphadenitis justified the type of operative procedure. Had there been evidence of inflammation of the vein wall, thrombectomy would not have been attempted, but ligation would have been performed above the level of the thrombus. With a thrombus as large and as free in the vein as in this case, fatal pulmonary embolism is quite likely to occur unless the operative treatment is prompt. It is a common experience that pain diminishes quickly and the patient becomes able to move the extremity freely after ligation of the vein.

Case 4.—*Recurrent Thrombosis with Pulmonary Embolism Following Ligation of Femoral Vein, Treated by Higher Ligation.*

A white male, aged 46, in December 1942 developed spontaneous thrombosis of the deep veins of the right calf with tenderness, swelling, and positive Homans' sign. With bed-rest for 10 days the symptoms subsided and the patient was allowed to resume activity, wearing an elastic stocking. About 2 weeks later 2 episodes of pulmonary embolism occurred within 24 hours. The patient was readmitted to the hospital in a state of shock. Tenderness was noted over the popliteal and the lower part of the femoral vein with slight swelling of the right leg. The right femoral vein was exposed at the level of the saphenous vein and was found to be free of thrombus. The vein wall was thickened and inflamed, and the regional lymph nodes were enlarged. The femoral vein was ligated just distal to the saphenous (fig. 3). Satisfactory convalescence resulted, and the patient was discharged wearing an elastic stocking. He resumed normal activity although the right leg remained swollen. On April 2, 1943 the patient felt chilly and developed pain in the right hemithorax with cough. Several days later the sputum was bloody. He was readmitted to the hospital on April 9. The right leg was swollen, and there were pain and tenderness of the entire right thigh. A roentgenogram of the chest showed multiple infarcts in both lower lobes. A venogram of the left lower extremity showed no abnormality of the deep veins. On April 10 the right iliac vein was exposed through an extraperitoneal incision. Both iliac veins were thick-walled and were densely adherent to surrounding tissues and surrounded by enlarged lymph nodes. The right common iliac vein was filled with thrombus. This vein was opened near the entrance into the inferior vena cava above the level of the thrombus and was doubly ligated. The left common iliac vein was opened, but it contained no thrombus; it also was doubly ligated. The inferior vena cava was then ligated at the lowermost part (fig. 3). On recovering from the anesthesia the patient had intense pain in the entire left lower extremity. The superficial veins were dilated, there was mottled cyanosis of the leg, and arterial pulsations were present. Left lumbar sympathetic block with procaine was performed with immediate relief of pain. Convalescence thereafter was stormy for the first 4 days, after which there was gradual improvement. Superficial collateral veins developed rapidly over the upper thigh and abdomen. The patient was discharged from the hospital on April 28, wearing elastic stockings. Mild edema of the right leg and moderate edema of the left leg persisted; otherwise there was full recovery.

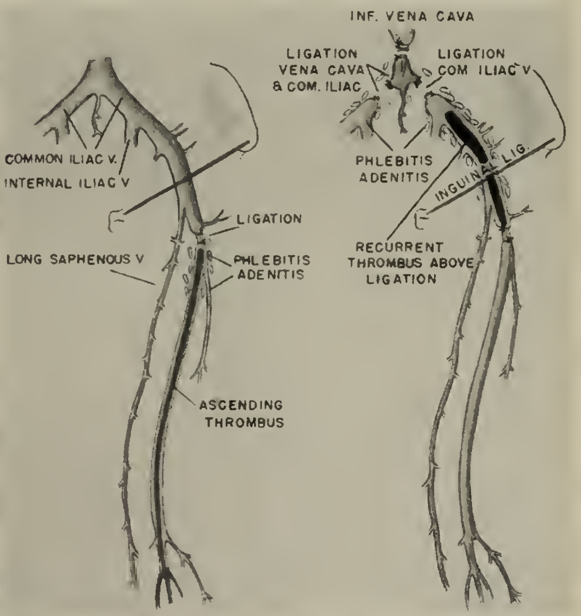

FIG. 3. Recurrent thrombosis with pulmonary embolism following ligation of femoral vein, treated by higher ligation.

Comment on Case 4.—This patient had apparently recovered from thrombosis of the deep tibial vein treated conservatively. However, about 2 weeks after resuming activity he developed pulmonary embolism which unquestionably originated in the deep veins of the leg. Perhaps repeated examinations of the patient would have revealed evidence of extension of the thrombosis before pulmonary embolism occurred. Ligation of the femoral vein above the thrombus did not prove adequate in this case, as evidenced by the later development of thrombosis above the point of ligation and pulmonary embolism. This might have been anticipated from the appearance of the femoral vein at the time it was ligated. This operation failed in that it did not isolate from the circulation the diseased portion of the femoral vein above the ligature. The second operation, although radical, not only isolated the thrombus but all diseased veins as well.

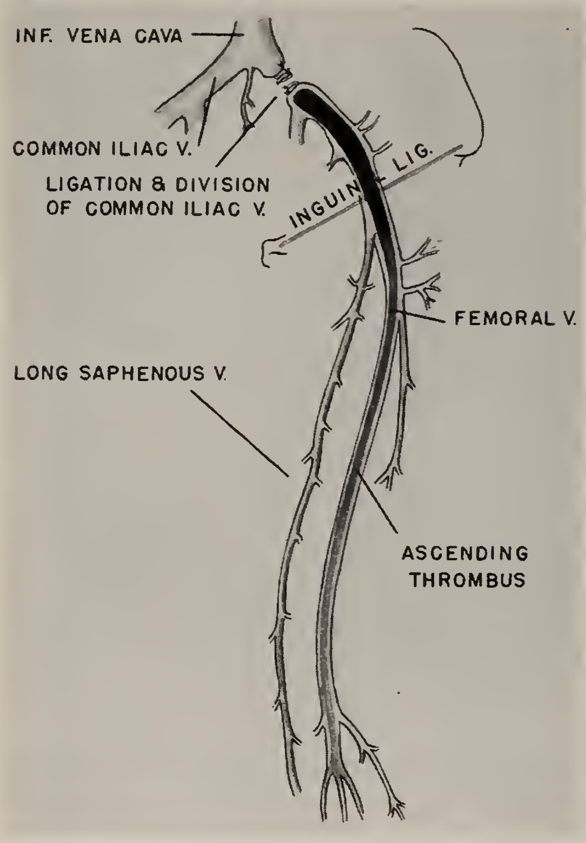

FIG. 4. Thrombosis of deep veins of foot and leg extending to iliac vein, treated by ligation and division of common iliac vein.

Case 5.—*Thrombosis of Deep Veins of Foot and Leg Extending to Iliac Vein, Treated by Ligation and Division of Common Iliac Vein.*

A negro male laborer, aged 47, was admitted to the hospital on April 30, 1943 because of pain in the left foot and leg while at work 2 weeks before. Swelling was noted in the foot and leg by evening. He continued working until the day of admission. Pain and swelling gradually extended to the inguinal region. The temperature was 99°F., and the pulse rate was 100. The entire left lower extremity was moderately swollen, and the superficial veins of the leg and thigh were dilated. Numerous large superficial veins extending from the inguinal region over the lower part of the abdomen and lateral surface of the hip were present. The inguinal lymph nodes were enlarged on the left side. Tenderness was present along the entire course of the veins from the plantar surface of the foot to the inguinal ligament. There was no obvious thrombosis of the superficial veins. Homans' sign was positive. On May 1 the left common iliac vein was exposed through an extraperitoneal approach. The thrombus extended to the point of junction of the external and internal iliac veins. The external iliac vein was inflamed and adherent to surrounding tissues. Enlarged lymph nodes were noted along the entire course of the iliac vessels. The common iliac vein was opened by a small incision. The thrombus had not extended to this portion of the vein. The vein was doubly ligated and divided (fig. 4). There was prompt relief of pain after the operation, and the edema gradually subsided. Convalescence was normal. The patient was out of bed after the tenth day, wearing an elastic stocking.

Comment on Case 5.—This case demonstrates the importance of a thorough history of the onset and course of the disease. The findings at the time of admission were identical with those of acute femoro-iliac thrombophlebitis. However, the history showed that this was a slowly propagating thrombosis which started in the deep veins of the foot and calf. The prominent collateral veins in the inguinal region indicated that the thrombus had already reached the iliac vein at the time of hospitalization. There was no way to be sure that the thrombus was not still extending and that embolization was not imminent. From the duration of the process, the presence of inguinal lymphadenopathy, and the evidence of developing collateral circulation, it could be presumed that the femoral vein was inflamed. Experience has shown that when this is the case a femoral thrombectomy is inadvisable because of the likelihood of recurrence of thrombosis. It is better therefore to ligate at a higher level, if possible above the point at which the vein is diseased.

Case 6.—*Propagating Thrombosis of Left Subclavian Vein with Multiple Pulmonary Infarcts Complicating Congestive Heart Failure.*

A colored female, aged 33, gave a history of normal pregnancy with uncomplicated delivery on January 12, 1940. One week later she developed dyspnea and precordial aching. Soon afterward, orthopnea, cough productive of frothy sputum, and postural dependent edema appeared. She was treated at home by her family physician for heart failure, being digitalized. There was gradual slight improvement until March 17, 1940. Then the patient suddenly developed pain in the left pectoral region and arm and swelling of the left upper extremity and breast. In the next 3 days dyspnea and cough became very severe. On admission to the hospital on March 20, 1940 there were obvious signs of severe heart failure, a rapid pulse rate, blood pressure of 165/140, mild hypertensive retinopathy, severe cardiac enlargement with gallop rhythm, edema of the left shoulder and arm, prominent superficial veins of the left pectoral region and shoulder, and multiple pulmonary infarcts in both lungs (roentgenographically shown). Hypertensive heart disease with severe heart failure, thrombosis of the left subclavian and axillary veins, and multiple pulmonary emboli with infarction were diagnosed. On March 21, 1940 the venous thrombosis extended to the left cervical veins. The patient was treated by the usual routine for heart failure with great improvement by March 25. The venous pressure was 240 mm. of saline in the left antecubital vein and rose to 390 mm. with exercise of the hand for 30 seconds; it was 115 mm. in the right arm, with no rise with exercise. Improvement continued until June 1940, when the symptoms and signs of heart failure again became severe, apparently as the result of mild physical activity undertaken against advice. The left arm was continuously swollen. Dilated veins appeared on both sides of the upper part of the chest. The course was then steadily downhill. Just before death on July 20, 1940 the left lower extremity was disproportionately edematous.

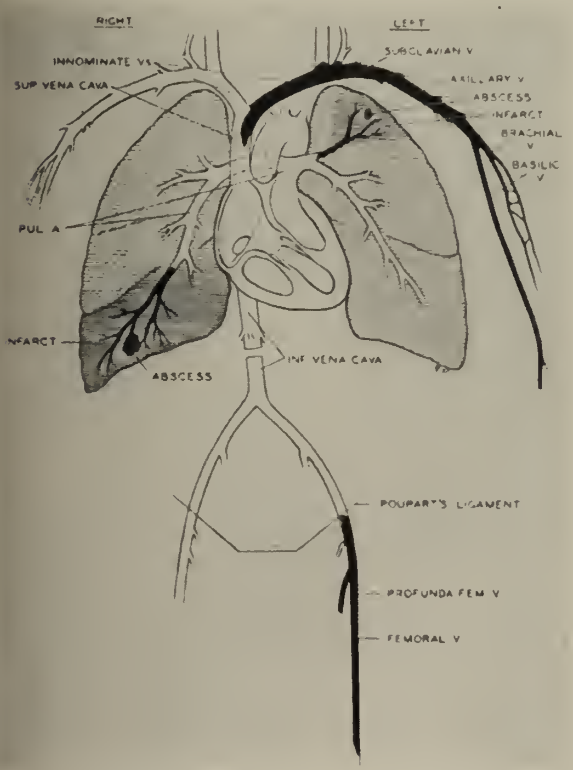

FIG. 5. Propagating thrombosis of left subclavian vein with multiple pulmonary infarcts complicating congestive heart failure.

Autopsy revealed the usual findings of chronic congestive heart failure. The heart was dilated and hypertrophied in both ventricles (390 Gm.); 2 small organized mural thrombi were present in the left ventricle. There were large pulmonary infarcts with necrosis and abscess formation in the right lower lobe and the left upper lobe and small infarcts of varying ages elsewhere in both lower lobes. An old organized thrombus partly filled the superior vena cava and completely filled the left innominate, subclavian, axillary, brachial, and external jugular veins. The left femoral, deep femoral, and popliteal veins were completely filled with a fresh thrombus (fig. 5). Microscopic evidence of renal arteriolosclerosis was noted.

Comment on Case 6.—This case illustrates pulmonary embolism resulting from thrombosis of the veins of the upper extremity. Such thrombosis is much less common than in the lower extremity. However, it occurs more frequently in cardiac patients than is generally realized, and in such patients it carries a high potential danger of pulmonary embolism. In a series[11] of 46 cases of thrombosis of the axillary and subclavian veins, 16 were patients with heart failure. Pulmonary embolism developed in 9 of the 16 and was fatal in 7.

In the case reported here the thrombus propagated extensively, finally involving all the major veins of the arm, the external jugular vein, the innominate vein and the superior vena cava. There undoubtedly were repeated episodes of pulmonary embolism resulting from the thrombosis, although each episode was not recognized clinically. There is no question that the pulmonary infarcts greatly aggravated the heart failure and were the main factor in the patient's death.

The mural thrombi in the left ventricle and the thrombus in the veins of the left lower extremity were relatively unimportant in the progress of the case. There was no evidence of embolism from the thrombi in the ventricle into the systemic circulation. The thrombus in the femoral vein was too recent in development to be related to the older pulmonary infarcts. However, these additional thrombi suggest that the patient had a strong tendency to intravascular clotting. This emphasizes the necessity for looking elsewhere for thrombi in a patient who has evidences of thrombosis in one location.

Because of the frequency of pulmonary embolism from thrombosis of the axillary and subclavian vein in patients with heart failure, ligation of the subclavian vein should be performed early, before the thrombus propagates into the innominate vein.

Case 7.—*Spontaneous Thrombosis of Saphenous Vein, Treated by High Ligation.*

A colored male, aged 50, was admitted to the hospital on February 25, 1939 because of benign prostatic hypertrophy and varicose veins. On March 14 before the performance of any surgery he developed thrombosis of varicose veins of the left leg at the level of the knee. The temperature and pulse rate were normal. Treatment was conservative. On March 20 the thrombosis showed upward extension along the saphenous vein. On March 21 saphenous vein ligation was performed at the saphenofemoral junction (fig. 6). The further course including prostatectomy was uncomplicated by additional trouble with the veins.

Comment on Case 7.—This patient had varicose veins of long duration. The saphenous vein was dilated and its valves were incompetent. He developed spontaneous thrombosis which was propagating upward. Furthermore, he was facing the prospect of a prostatic operation which would keep him bedridden for some days, thereby favoring further propagation. Thrombosis occurring in varicose veins and extending into the thigh is potentially dangerous from the standpoint of pulmonary embolism, although the frequency and severity of pulmonary embolism is much less than when the deep veins are involved. Simple ligation of the saphenous vein at its junction with the femoral vein removes the danger.

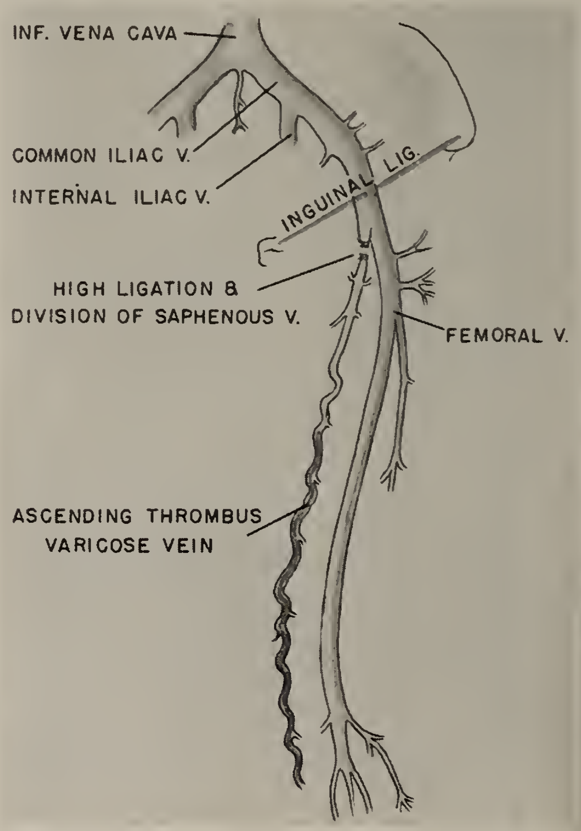
INF. VENA CAVA
COMMON ILIAC V.
INTERNAL ILIAC V.
INGUINAL LIG.
HIGH LIGATION & DIVISION OF SAPHENOUS V.
FEMORAL V.
ASCENDING THROMBUS VARICOSE VEIN

Fig. 6. Spontaneous thrombosis of saphenous vein, treated by high ligation.

Case 8.—*Suppurative Thrombophlebitis with Bacteremia Treated by Ligation of Common Iliac Vein, Surgical Drainage, and Sulfadiazine.*

A white male, aged 62, had a first stage suprapubic prostatectomy performed on March 1, 1943 with pulmonary embolism early in convalescence. The origin of the embolism was not determined. The patient recovered and left the hospital early in April. He was readmitted on May 2, 1943 for the second stage of the operation. The prostate was removed on May 6. The temperature was elevated to 104°F. on the day after operation; it declined to 101°F., but again reached 104° on the fifth postoperative day and remained septic thereafter with frequent chills. The pulse rate varied between 90 and 130. The leukocyte count varied between 20,000 and 32,000 with polymorphonuclear cells reaching as high as 97 per cent. No reason was disclosed by numerous examinations for the septic course. On May 22 the right thigh and leg were noted to be edematous (grade 3). Tenderness along the course of the deep veins of the thigh with abnormal inguinal lymphadenopathy was noted, and there was moderate pain with motion of the extremity. Right lumbar sympathetic block was performed with procaine on May 22 and May 23 without effect on the course of the symptoms. A blood culture was reported positive for Streptococcus hemolyticus on May 25. The right common iliac vein was exposed on May 26 and was found to be filled with thrombus. The vein was opened and the upper segment of the thrombus removed; the vein was doubly ligated. A culture from the thrombus was positive for Streptococcus hemolyticus. Sulfadiazine was started on the day of ligation. The course continued septic. On May 28 the right thigh was explored at the upper part; no pus was found. On May 31 the right thigh was again explored down to the femoral vein, still without pus. Septic fever, toxemia, chills, leukocytosis, and swelling of the right lower extremity continued. The sulfadiazine blood level was maintained aroung 10 mg. per 100 c.c. On June 12 the right thigh was again explored through the previous incisions; a large amount of pus was evacuated from the region of the femoral vein. Following incision and drainage of the pus, the fever and leukocytosis gradually declined and reached normal by June 26. The swelling of the right lower extremity diminished greatly. The patient left the hospital on June 30. He was examined at home on July 22; the only residual abnormality was slight edema of the right leg.

Comment on Case 8.—This patient apparently developed thrombosis in the right lower extremity following his first operation, although no clinical evidence of this process was noted except pulmonary embolism. Following the second stage operation on the prostate there ensued a septic course, the explanation for which was not disclosed until some days later. Eventually it was noted that the right lower extremity was edematous, and it was then assumed that the focus of infection had been in the deep veins all along. The finding of Streptococcus hemolyticus bacteremia and the discovery of the same organism in the thrombus substantiated this assumption.

Ligation of the right common iliac vein was performed to prevent another episode of pulmonary embolism and in order to isolate the infection from the blood stream. Adequate doses of sulfadiazine and the ligation, however, failed to control the infection. In anticipation of suppuration of the thrombus, two exploratory operations on the thigh were performed. Eventually suppuration did occur, and adequate surgical drainage promptly yielded favorable results.

Suppurative thrombophlebitis is rare, and the prognosis is grave. In cases of venous thrombosis in which there is a long septic course this condition should be suspected. The usual causative organism is a hemolytic streptococcus. This case demonstrates that the thrombus may yield a positive culture of this organism long before actual suppuration occurs. Ligation of the involved vein should be performed early, and a careful watch should be kept for signs of suppuration. Once this develops, adequate incision and drainage is indicated.

Summary and Conclusions

It has not been our purpose to discuss the prevention of peripheral venous thrombosis, but it is to be understood that suitable physical methods of prevention should be adopted routinely in all cases in which there is any likelihood of thrombosis. In addition, anticoagulants (heparin, Dicumarol) may have an important place in preventing thrombosis in certain instances.

Detection of peripheral venous thrombosis early is of prime importance in order that adequate measures for the prevention of pulmonary embolism may be employed. Since most cases of thrombosis involve the lower extremities, careful and repeated examinations of these members should be made in all bedridden patients. Practically all cases of venous thrombosis will show some positive sign. A search should be made for tenderness of the calf or along the course of the deep veins, Homans' sign, edema, abnormal coldness, and dilated superficial veins. A venogram should be made in doubtful cases. One should not wait for pain or elevation of temperature to direct his attention to disease in the patient's veins. Cases in which there is grave potential danger of embolism may not present these symptoms.

Since the classification of types of peripheral venous thrombosis is imperfect, it is a mistake to attempt to formulate a plan of treatment based on a classification alone. There are cases of typical acute femoro-iliac thrombophlebitis in which conservative measures, including lumbar sympathetic block, produce excellent results. There are cases in which thrombosis begins without antecedent phlebitis (phlebothrombosis), propagates rapidly, and frequently produces pulmonary embolism. In this type of case there is no question that ligation of the vein above the level of the thrombus is indicated. Between these two types of cases there is a large group of cases in which the true nature and potentialities of the process can be determined only by experience and careful observation. In any instance in which pulmonary embolism has occurred or in which there is evidence of propagation of the thrombus, early surgical intervention is imperative.

N. B. We wish to thank Drs. B. L. Hardin, W. K. Myers and Ralph M. LeComte for permission to include cases of theirs in the preparation of this report.

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New disease entity reported by 3 Army medical officers. A new disease entity heretofore undescribed, which they term Bullis fever, apparently transmitted by a tick, is reported in *The Journal of the American Medical Association* for August 21, 1943, by Colonel John C. Woodland, Major Mordecai M. McDowell and Captain John T. Richards, Medical Corps, Army of the United States.

The disease was first recognized in the spring and summer of 1942 at the Brooke General Hospital, Fort Sam Houston, Texas. It is self limited in most instances and apparently confers immunity on those contracting it, since no recurrences have been observed.

The onset of the disease usually was abrupt with an initial chill or chilly sensation ushering in the attack. Fever soon followed. A great majority of the men complained of headache. There was a pronounced lassitude, prostration, loss of appetite and general weakness during the fever stage of the disease and a few patients were nauseated and vomited. The fever lasted from four to fourteen days and in the average case the temperature was elevated for a little over five days. Convalescence was protracted, especially if the illness had been severe. There was loss of weight in a great many of the men. In the more severe forms of the disease a rash, resembling German measles and at times typhus, made its appearance early in the disease but disappeared within forty-eight hours. In about 10 per cent of the cases skin manifestations developed. From clinical observation, the authors report, it is apparent that the incubation period of the disease is from seven to ten days.

The disease resembles in some respects cases of Colorado tick fever but also might be confused with other disease conditions, such as malaria.

All of the men in the cases reported by the authors gave a history of repeated and prolonged exposure to bites by a tick commonly known as the Lone Star tick, so named because of the star-shaped mark on its back. Although no positive evidence of the association of bites by the Lone Star tick with this disease has been established, the authors say, it is their opinion that further laboratory investigation will prove that this disease is transmitted to man through the tick bite.

DEMENTIA PRECOX COMPLEXES

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A. The Oedipus Complex

FREUD was the first to apply the term Oedipus to the complex resulting from a mother-son attachment with an unconscious sex attraction, which, as a result of its efforts to force its way into the conscious, produces violent somatic and autonomic disturbances if a normal adjustment is not made.

Freud obtained the term from the Greek legend or drama King Oedipus by Sophocles. In synopsis it reads as follows. Laius, the king of Thebes, married Jocasta. After years of childless marriage King Laius visited the Delphian Apollo and prayed for a child. The Greek God answered: "Your prayer has been heard and a son will be given to you but you will die at his hand, for Zeus has decided to fulfill the curse of Pelops, whose son you once kidnapped." In spite of the warning the son was born, and fearing the fulfillment of the prophecy, the child's feet were pierced and tied and he was delivered to a faithful servant to be exposed in the desert. The servant, however, gave the child to a Corinthian shepherd, who took it to his master, King Polybus, who, being childless, adopted it and called it Oedipus, meaning swollen feet. When the boy grew up to manhood he became uncertain of his origin, and consulting the oracle, received the answer: "Beware that thou shoulds't not murder thy father and marry thy mother." In order to avoid the fulfillment of this prophecy, Oedipus at once left Corinth and accidentally wandered toward Thebes, where he solved the riddle of the Sphinx, driving the latter to suicide and thus freeing the city from a great scourge. As a reward for this he was elected King and presented with the hand of Jocasta, his mother. He reigned in peace for many years, and begot two sons and two daughters by his unknown mother, until a plague broke out which caused the Thebans to consult the oracle. The messengers returned with the advice that the plague would stop as soon as the murderer of King Laius would be driven from the country. Sophocles then develops the play in a psychoanalytic manner until the true relations are discovered, namely, that Oedipus killed his father and married his own mother, both unwittingly. The drama ends by Oedipus blinding himself and wandering away into voluntary exile.

Freud and Brill believe that this legend had its origin in the common difficulty of the neurotic boy making transference of his love life from his mother to a proper love object. Such transference means getting away from home and its protective environment and casting off, so to speak, on the unknown sea of life. The primitive fear of the unknown plays a dominant role. This conflict, especially in the neurotic, is quite violent, resulting in more or less severe autonomic disturbances. Brill states that the mental conflict is shown in the content of many incestuous dreams which he has recorded in hundreds of cases.

In the cases to be cited the fundamental psychoanalytic principle used is that of inducing emotional and mental catharsis, which is then followed by a readjustment of the patient's thought processes and emotions. In other words, the aim is the development of insight through psychotherapy. Rapport and transference are of primary importance. Wholesomely interpretative insight into human nature is absolutely essential, with entire freedom from prejudice and with an earnest desire to assist the patient to readjust, so as to become a useful member of society. One of the first principles of successful psychoanalysis is to recognize that the sexual affections are the greatest constructive forces of the personality, but may become the most insidiously and irresistibly destructive if perverted or unconditionally repressed.

ILLUSTRATIVE CASES

Case 1.—The case of A. H. will illustrate the Oedipus complex, in which an elder and only sister is the mother substitute. In the Oedipus complex it is always significant that the patient has not found a suitable love object, his excuse often being that when he finds a girl as good as his mother he will marry her. His mother, in entire ignorance of the unhappiness she is inflicting upon her son, encourages this attitude on his part by over-solicitous concern and affection, and never loses an opportunity to speak disparagingly of any of his girl acquaintances in whom she feels he is becoming unduly interested. Both mother and son are apparently unaware of any sex factor.

A brief summary will be given of the facts brought out during the psychoanalysis which warranted the diagnosis of Oedipus complex, also the psychotherapeutic methods used to develop insight. Consultation had been requested in this case because of definite symptoms involving the autonomic system, such as gastrointestinal distress, chronic constipation, burning sensations, a feeling of discomfort in the lower abdomen, and cardiovascular disturbances.

The patient is 31 years of age, single and an architect by occupation. It was observed that he was the schizoid personality type, and a sex conflict of some kind was suspected. He was questioned in a sympathetic manner regarding his physical complaints in an effort to bring about a transference as soon as possible. All of his subjective complaints were discussed with him and he was encouraged to give them in detail with all circumstances associated with their beginning. His early childhood and home life were gone into with great care for possible leads, and the following important points were brought out.

His mother died when he was 3 years of age, and he was raised by an only sister. He states that she took the place of his mother in his thoughts and he has always been devoted to her. They live with their grandparents, who are old and extremely deaf. His sister has never married and is quite lonesome and unhappy. He has always felt sorry for her. He often referred to her as a wonderful girl and that he had never known a woman like her or one who possessed her many virtues and good qualities. Whenever he could, he remained at home with her, and whenever he went out socially she always accompanied him. She seldom ever gave him an opportunity to be alone with other girls.

During my various interviews with him, which covered a period of 6 months, it was definitely corroborated that his attachment for his sister, in the role of mother, was the chief cause of his inability to make a normal transference of his affections to a proper love object. Several attempts were made in the early part of the psychoanalysis to develop insight, but as he continued engrossed in his subjective physical symptoms and considerable resistance was encountered, I desisted in these attempts until several more contacts were made because of the fear of losing rapport. An attempt was made to assist him to acquire insight by an experiment without bluntly telling him that he was in love with his own sister as a mother substitute. At first hypothetical cases were cited of mother-son attachments, during which symptoms similar to his were experienced. He apparently opposed the idea that his case was similar, but it was noted that he improved considerably. He was then urged to seek the society of other girls as much as possible with a view to matrimony. Since he had often stated that he felt quite sure that he was heterosexual in his desires, although he had no sex experience, he agreed to try the suggestion.

About 2 months later he reported in an agitated and frightened state of mind, stating that he had recently fallen in love and become engaged, and that before he left the young lady's home he had a violent revulsion of feeling and was in a severe panic. He stated that he made his excuses to her and returned home, that he became nauseated, with vomiting attacks and diarrhea, had a severe headache with vertigo, and was extremely agitated. He was unable to sleep or eat and could not attend to business for several days.

An attempt was made again to develop insight, but he was too agitated to make it successful. He came in 3 days later. He continued extremely agitated and frightened about his symptoms. I was able to develop insight to the extent that the patient began to realize that many of his physical symptoms were of mental origin. This relieved him immensely. He was advised to break his engagement at once. He stated that he had already made tentative plans to do this, as he felt it would be impossible for him to go through with it.

He was seen about 2 weeks later and all of his symptoms had disappeared. He was quite happy and had partial insight, i.e., to the extent that he now felt sure his recent physical symptoms were of mental origin. He did not have insight, however, as to the cause of his aversion to marriage. Efforts were again made to develop complete insight, but these efforts were blocked because he was not ready to give up his sister.

His fiancée came in a few days later. She was matronly appearing, had been engaged before, and was considerably older than the patient, who was probably first attracted to her as a mother substitute. She was quite mystified by his conduct, but was anxious to marry him and solicited my aid in her behalf.

At the patient's next visit efforts were renewed to develop insight. Apparently some degree of success was attained. He was now told quite bluntly that he would have to make a complete transference of his affections to a suitable love object in order that his personality and masculine aggressiveness could develop to their fullest possibilities. He was warned against the danger of introversion and of emotional regression. He seemed to appreciate the truth of these statements and apparently accepted them.

Case 2.—H. B. illustrates the typical Oedipus complex, or direct mother-son attachment. Like A. H., whose case I have just reviewed, he was unaware of any sex feature. It is shown that the gradual forcing of emotional regression upon the patient, with frequent marked disturbance of the autonomic apparatus due to fear reactions, which in turn were caused by biologic and unconscious opposition, are a direct result of this complex.

H. B. is 25 years of age, single, and an only child. His family history shows that he had a neurotic father and that 3 paternal aunts were temporarily psychotic. He has been the sole support of his mother since his father's death 10 years ago. His occupation is writer and salesman of popular songs for a song publishing company. He had been quite successful up to this time. His chief complaints were nervousness and vague fears, especially when he was away from his mother. Whenever he was on the road, usually when alone in his hotel room at night, he would have severe attacks of fear with marked reactions of the autonomic apparatus. These sensations or reactions would increase the emotion of fear, thus forming a vicious circle. Entire lack of insight was the factor that prolonged and intensified his fear reactions. He is of the schizoid personality type with the usual difficulty in making a transference of his affections to a suitable love object. He had masturbated more or less since the onset of puberty, thus disclosing the definite autoerotism and narcissism so common in this type. His adherence to onanism to the age of 25, however, shows an immature and retarded emotional development, largely due to the mother attachment. At the age of 19, intuitively realizing his danger, he made an effort to break away from his mother attachment.

He stated that he had been in love with a stenographer and was planning to marry her. His mother objected strenuously, criticizing and speaking disparagingly of the girl at every opportunity. She used also the plea that he was her sole support. She finally succeeded in persuading him to break his engagement. He was very unhappy over it and told his mother many times that she had "wrecked his life."

Since then he has made no serious attempt to fall in love but has become more and more attached to and dependent upon his mother. They have been living in an apartment for several years, the patient often calling his mother into his bedroom at night on the pretext of pain in some part of his body, usually the abdomen. He is quite childlike at such times and is greatly comforted if she will caress him in some way. When temporarily master of this tendency to emotional regression, he has been quite successful in his business, but recently he has become more and more panicky when away from his mother for any length of time. His fears, phobias and obsessions dominated and engrossed him more and more until he was discharged from his position. Since that time he has remained at home with his mother and is apparently unable to resist the regression and introversion of his personality.

Repeated efforts were made to increase insight but were unsuccessful because of the duration of the complex and associated causes. Hypothetical cases were cited and he was repeatedly told that emotional regression was taking place, and that his personality development was being blocked because of his mother attachment. He was urged to take steps immediately to break away and make a transference of his affections and love life to a suitable object. He was warned that disintegration of his personality was in progress. It was felt that his mother might save the situation if her coöperation could be obtained. The Oedipus complex and its dangers were explained to her in detail. She appeared very much interested and gave a number of details which furnished additional proof that her son was unconsciously attached to her in a sexual way. She had suspected something of the sort but had ignored it. She stated that she had had several opportunities to remarry but that he always opposed it. She appeared quite anxious to coöperate in every way, but it was evident that she did not fully understand her son's danger.

The success of his treatment will depend to a large extent upon the development of complete insight into his condition and appreciation of his danger with a determined effort to overcome it. The prognosis is exceedingly doubtful, however, because of beginning disintegration of his personality and emotional regression.

The latest information concerning the patient is that he has gone to California with his mother.

B. The Homosexual Complex with Early Paraphrenia

The homosexual complex results from a refusal of an introverted individual to admit frankly to himself that he is homosexual and his inability to make a satisfactory adjustment. The moral, religious and social censors which have subtly arisen within him are directly responsible for the violent emotional and mental conflicts that result. Lack of frankness with himself leads to constant repression of instinctive urges and a resultant failure to make proper adaptations. Numerous bizarre substitutions result. A normal substitution, for example, is some type of artistic or creative work.

The following cases are quite similar in their origin and subjective symptoms and will serve to illustrate the interpretations briefly stated above. Both cases were referred because of their insistence that their perspiration had a foul odor. They had been thoroughly examined physically, and there was an entire absence of proof to substantiate their complaints.

Illustrative Cases

Case 3.—F. C. is an only child, 20 years of age and single. He left college at the age of 19 in the second year. He was first employed as a physical director for boys in a city department of education. During the past 3 weeks he has been employed in the bookkeeping department of an automobile equipment company.

During the initial contact I noted that the patient was the schizoid personality type. A sex conflict of some kind being suspected, it was considered significant that he had left college in the second year; that he had been a physical director for boys; and that he had obtained a new position about 3 weeks prior to coming to the hospital. He was questioned carefully as to why he quit college in the second year, why he had secured a new position 3 weeks ago, and as to how he was getting along with his fellow employees in his present position as assistant bookkeeper. After rapport and a partial transference were obtained, he stated that for over 2 years he had felt that people were avoiding him and making derogatory remarks about him behind his back. He often felt in danger and became very nervous and agitated. He had very disturbing dreams and at times walked in his sleep.

His ideas of self-reference became more marked and at times he thought he could hear an occasional threat. He was often in a state of severe anxiety-hysteria with marked disturbance in the autonomic vegetative nervous system. His physical symptoms only terrorized him more because of his entire lack of insight.

It was brought out that the content of his ideas of self-reference and his occasional transitory auditory hallucination had a definite sexual coloring, the content representing a repressed fear that he would be thought homosexual. He did not have complete insight for this, however, and attributed the unfriendly attitude in his environment to a fancied bromidrosis.

The psychoanalytic problem was to develop insight and apply psychotherapy enabling him to adjust without a violent emotional upset. He was told that the feeling he had during the last 2 years that people were avoiding him, and his conclusion that it was due to his perspiration having a bad odor, could be explained by the fact that he was homosexual in his desires and unconsciously felt that others knew it and were avoiding him, and that he had not yet recognized that fact or admitted it in his conscious mind. He neither denied nor resented the above interpretation, but flushed and smiled in an embarrassed manner. In order to make the admission and his adjustment less difficult, he was then advised to admit frankly to himself that he was biologically or congenitally homosexual, or had become so in early childhood. He was further assured that no one in his environment knew of his sexual inclinations and that he should make every effort to conquer the feeling that they were against him. Definite improvement was noted as a result of the analysis. The latest report is that he has secured another position and is getting along very well.

This type is always informed that there is a large number of homosexuals or inverts who are making a satisfactory sublimation in artistic and creative work, and that many of them are very clever and talented people. This takes away the feeling of isolation and that they are social outcasts despised by all men.

Case 4.—G. B. is 18 years of age and large for his age. He is an only child. It is quite evident that he is the schizoid personality type. He graduated from high school 1 year ago. He denies any difficulty at home. He states that he prefers his mother to his father, but there is no evidence of an Oedipus complex. While attending school he was rather backward socially and took very little interest in the social activities of the school. He had a number of boy friends with whom he was quite friendly and sociable. His crowd cared very little for girls. He states that he is interested in athletics. He has always admired large men and is quite proud of his physique and health, a fact that suggests a tendency to autistic love or narcissism. He denies masturbation and sex relations of any type but admits nocturnal emissions during the last 4 or 5 years. The emissions accompany dreams and are "somewhat similar to those dirty jokes you hear in school." He denies any erotic dreams for some time.

The onset of his present illness was characterized by a feeling that his perspiration had a disagreeable odor and that people avoided him on that account. He first noticed it during his last semester in high school. He occasionally noticed that when a girl was near him she would hold her handkerchief to her nose and that certain boys seemed to avoid him or look at him significantly. This occurred at 9:30 a.m. daily during a recitation period and continued for 3 weeks. It then became general and every one with whom he came in contact seemed to notice it and avoid him. He was greatly worried, greatly disturbed, and became quite panicky at times. He felt a vague sense of danger, but he denies hallucinatory experiences. He states that he had been an honor student up to that time, but as a result of the above ideas of reference he became so worried and confused that he had great difficulty in graduating with his class. He remarked that he "just did get by." Recently he began a business course, and the same ideas of reference again became a definitely disturbing factor. He was very much worried and fearful that he would have to give up this course and that he would be unable to succeed at anything.

He had been to a dermatologist for treatment for bromidrosis and was given a thorough physical examination. It was found that his perspiration had no unusual odor, although he insisted that it did. He was referred for a psychiatric survey and any necessary psychotherapy. While obtaining the above history the patient's personality type was carefully studied and constant effort made to obtain transference and establish rapport in order that he would talk more frankly concerning his sex desires.

There is sometimes danger of homicide or suicide in developing insight in this type of case, because the most intimate thoughts in the patient's psychic life must be brought to the surface from the unconscious where they are fixed in the form of a complex. It is very essential that transference and rapport be maintained. Extreme tact, tolerance and broadness of mind are absolutely essential in order to persuade the patient to admit the very thing that he has persistently refused to admit, thereby producing the ever-increasing mental conflict due to his determination to repress any and all abnormal sex ideas. A complex, which is a central idea surrounded by a constellation of associated ideas based upon a fear reaction and located in the unconscious, is thereby formed.

The constant effort and struggle of the complex for recognition and assimilation by the ego results in a more or less severe disturbance in the autonomic nervous system with secondary physical symptoms. These frighten the patient and a secondary fear reaction or anxiety hysteria is developed.

The psychotherapeutic method followed was quite similar to that followed in the case of F. C. Similar cases were cited in order that he would not feel isolated, and he was warned against further refusal to admit his homosexuality. He was told that admitting to himself that he was homosexual did not necessarily mean giving in to the urge, but that it did mean he would be facing facts squarely and no longer fighting an unknown and unseen enemy. He was further informed that the fear element would then be removed, the physical symptoms disappear, and the complex be assimilated by the ego with resultant peace of mind. He seemed much relieved after the above mechanisms were explained to him. They were gone over in detail many times until it was evident by his emotional responses that he had developed insight and was making a mental adjustment. He was seen again 2 weeks later. He no longer complained of his perspiration and stated that he felt much better and was doing better work in school. He had no further fear regarding his associates or his environment. He appeared quite cheerful and happy and stated that he felt he understood himself at last. He did not think it necessary to make another appointment, since he felt quite sure of himself.

In the preceding cases the mental mechanism leading to the delusion that they had a bromidrosis which influenced people against them was explained as follows. They were told that because of their failure to recognize, or refusal to accept the fact that they were homosexual, and because they were fearful that their associates suspected they were inverts by inclination, if not by practice, they had substituted the more acceptable explanation that an offensive body

(*Continued on page 372*)

PERITONEOSCOPY

LEON GERBER, M.D.
Washington

IN THE modern period the trend in both medicine and surgery has been toward more direct visualization of disease processes; diagnosis rests on various examinations as well as deduction. For this reason the visualization of body cavities has received increasing consideration on the part of the profession.

Certainly the procedures of cystoscopy, bronchoscopy, esophagoscopy, gastroscopy, thoracoscopy, rectosigmoidoscopy, otoscopy and ophthalmoscopy have become firmly established in even the most conservative circles as valuable adjuncts to diagnosis. To this endoscopic repertoire must now be added the procedure of peritoneoscopy. Though this procedure has not achieved the popularity it deserves, it is becoming progressively and increasingly more useful as its possibilities are recognized. A nation-wide interest in the application of the peritoneoscope has been growing since 1934. This relatively new procedure is presented as a limited adjunct to complete medical and surgical diagnosis. To claim any more for the use of this metal tube would be to immediately place it in disrepute.

The procedure of visualizing the peritoneal cavity and its contents by means of an optical instrument is known as peritoneoscopy. Synonyms are celioscopy (Kelling,[1] 1901), ventroscopy (Van Ott,[2] 1901), laparoscopy (Jacobeus,[3] 1911), organoscopy (Bernheim,[4] 1911), abdominoscopy (Medical Dictionary and Steiner,[5] 1924), and splanchnoscopy (Medical Dictionary).

In 1901 Kelling[1] first demonstrated this procedure on a living dog by inflating the abdominal cavity with air and examining the contents with a Nitze cystoscope. Kelling later published 2 monographs in the German literature, the first appearing in 1902 and the second, dealing with human subjects, in 1910. In 1910 Jacobeus[3] of Stockholm published a paper on a like procedure of visceral exploration developed independently by him. In 1911 Bernheim,[4] an American, working at Johns Hopkins Medical School, introduced a proctoscope of one-half inch bore through an incision in the epigastrium and with the aid of a head mirror examined the stomach, liver, gall bladder and diaphragm. In 1912 Tedesko,[6] of Vienna, reported his experiences with laparoscopy, following the technic described by Jacobeus. In 1912 and 1919 Stolkind[7] in Russia reported the use of this procedure. In 1914 Roccavilla[8] of Italy modified the method by designing an instrument which permitted the source of light to remain outside of the abdomen. Orndoff[9, 10] of Chicago stated that he was experimenting with this method in 1920. In 1923 Kelling[11] addressed the German Surgical Society concerning the subject. This work becomes remarkable in that the technic applied by him thirty-five years ago is, with very little modification, the technic used today. In 1924 Steiner[5] of Georgia, Stone[12] of Kansas, Edwards of England, Zollikofer of Switzerland, and Unverricht of Germany reported on the procedure. Kampmeier and Nadeau[13, 14] of Chicago in 1925 published a very complete description of the technic of endoscopy of the abdomen. From 1934 to date the procedure has been perfected by Dr. John C. Ruddock of Los Angeles, California. Dr. Ruddock[15, 16, 17] invented the instrument used today and published many comprehensive statistical reports on its use. Dr. Thomas N. Horan[18] and C. Graham Eddy of Detroit inaugurated intraperitoneal photography in color in 1939.

TECHNIC AND VISUALIZATION

Although a satisfactory celioscopic instrumentation could be made in the home or office, at the present stage of experience it is considered advisable to limit the procedure to the operating room. In experienced hands it can be performed satisfactorily in a one-half hour period. The patient may leave the hospital within twenty-four hours if desired.

No preparation is necessary before the examination other than the use of morphine and a barbiturate of suitable dosage. Two per cent novocaine is used for anesthetizing the small area of puncture. A small stab incision is made to admit the sheath of the instrument snugly, and the point of the knife is aimed down to nick the fascia. A guarded blunt pneumoperitoneum needle is inserted gently into the peritoneal cavity. The abdomen is then distended by atmospheric air, unfiltered and unmeasured, until a suitable dome of air is established, and the needle is then removed.

The trocar and cannula are now inserted to one side or the other of the spinal column so as not to impinge the bowel against this structure. The cannula now serves as the pathway for the visualization and biopsy procedures.

Visualization can be carried out in a complete circle so that the complete abdomen may be seen. All the contents of the peritoneal cavity can be observed that would be visible if the anterior abdominal wall were lifted up. The liver, gall bladder and pelvic organs can be seen especially clearly. Retroperitoneal conditions, the hepatic trio, the pancreas, and the kidneys cannot be observed.

Upon completion of the examination the air is allowed to escape. One or two nonabsorbable sutures or skin clips suffice to close the punch incision. Any remaining air is rapidly absorbed. There is practically no discomfort from the distention and there is no postoperative disability. The patient is allowed to eat and is given bathroom privileges soon after the visualization.

DIAGNOSTIC APPLICATION

Laparoscopy should never be performed without a definite purpose in mind. The procedure is then carried out in order to accomplish this purpose. To determine the presence of metastases, to corroborate a diagnosis, to differentiate and localize tumor masses, and to aid in differential diagnoses are some purposes which justify the examination.

It must be particularly stressed at this point that peritoneoscopy is not a substitute for a thorough clinical work-up nor does it supplant the truly indicated laparotomy.

Any procedure that allows one to see through a mere puncture the diseased organs clearly and sharply without a laparotomy and without discomfort is ideal. It is especially serviceable when a biopsy may be obtained. The method will not and cannot replace the laparotomy, but it is the choice in a great many abdominal conditions. An acute abdominal case should not be so examined. Hasty surgery should be censured when there is adequate time to make a diagnosis. The peritoneoscope has often unearthed pathology which caused laparotomy to be indicated or conditions which contraindicated it.

Indications for peritoneoscopy are:

1. Differential diagnosis of intraperitoneal tumors
2. Determination of operability of intra-abdominal malignancy
3. Differential diagnosis of ascites
4. Differential diagnosis of gall bladder and liver disease
5. Differential diagnosis of gynecologic affections
6. Biopsy of intra-abdominal lesions
7. Direct X-ray visualization of the gall bladder.

Contraindications of peritoneoscopy are:

1. Previous multiple operations making entrance into and exploration of the abdominal cavity impossible
2. Acute abdominal infections

3. Peritonitis, suppurative
4. Severe cardiovascular disease making any procedure dangerous.

Advantages of peritoneoscopy compared with exploratory laparotomy may be tabulated as follows:

Advantages of Laparotomy	Advantages of Peritoneoscopy
1. Economic features—large	1. Economic features—small
a. major operation	a. minor operation
b. hospitalization—2 weeks	b. hospitalization—1 day
c. dressings—many	c. dressings—few
2. General anesthesia	2. Local anesthesia
3. Dietary limitations	3. No dietary limitations
4. Discomfort—reasonable	4. Practically no discomfort
5. Large incision	5. Stab incision
6. Mortality risk—6 per cent (Lahey)	6. Mortality risk—0.2 per cent

Disadvantages of peritoneoscopy compared with exploratory laparotomy may be tabulated as follows:

Laparotomy	Peritoneoscopy
1. More thorough visualization	1. Not as complete
2. Palpation	2. No palpation
3. Therapy can be applied	3. Diagnostic only

Diagnostic Accuracy

The compilation of statistics with regard to comparing accurately clinical methods of diagnoses with peritoneoscopic methods becomes exceedingly difficult. This is especially true when a case is referred for celioscopy with four or five suspected clinical diagnoses. Dr. John C. Ruddock[16] of Los Angeles has reported a series of 500 cases which bear accurate statistical analysis. In this series he found the clinical diagnoses to be correct in 63.9 per cent and the average peritoneoscopic accuracy to be 91.7 per cent.

In 140 cases of suspected hepatic cirrhosis the clinical diagnosis was 85.7 per cent correct, the peritoneoscopic, 95 per cent accurate.

In 3[illegible] cases of suspected tuberculous peritonitis there was 50 per cent clinical accuracy as compared with 66.7 per cent peritoneoscopic accuracy.

The peritoneoscope was 87 per cent correct as compared with 76 per cent clinical accuracy in 71 cases of suspected peritoneal metastasis.

In 135 cases of suspected malignancy of the liver the clinical diagnosis was 56.6 per cent accurate and the peritoneoscope 87.4 per cent accurate.

In 31 cases of suspected ectopic pregnancy the peritoneoscope was 100 per cent accurate and the clinical diagnosis 42 per cent accurate.

Accidents and Complications

Accidents in the Ruddock[16] series were as follows:

1. Small bowel punctured with hypodermic needle but no sequela . . . . 1 case
2. Small bowel punctured with pneumoperitoneum needle . . . . 1 case
   Operation—hole repaired, cause—postoperative adhesions
3. Small bowel punctured with trocar . . . . 1 case
   Operation—hole repaired, cause—tuberculous peritonitis
4. Small bowel punctured with trocar . . . . 1 case
   Operation—hole repaired, cause—postoperative adhesions
5. Transverse colon punctured with trocar . . . . 1 case
   Operation—hole repaired, cause—carcinomatosis
6. Sigmoid colon punctured with trocar . . . . 1 case
   Operation—hole repaired, cause—intestinal obstruction (carcinoma of the rectum)
7. Stomach punctured with pneumoperitoneum needle . . . . 1 case
   Operation—hole repaired, cause—full meal
8. Stomach punctured with pneumoperitoneum needle . . . . 1 case
   Operation—hole repaired, cause—dilated stomach (Hodgkin's disease)

Total Accidents 8
Per cent 1.6

Examination in the 1 fatal case (0.2 per cent mortality) determined extensive metastatic carcinoma of the liver. A biopsy specimen had been taken from the nodule. The patient died 6 hours later of hemorrhage from the biopsy wound in the liver.

A summary of the Ruddock series is as follows:

Total cases examined	500
Total complications and deaths	9 (1.8 per cent)
Unsuccessful examinations	3 (0.3 per cent)

The cause of failure to enter the abdominal cavity in all 3 cases was the presence of dense adhesions.

PERSONAL EXPERIENCE

Over a period of 2 years I have had occasion to perform 43 peritoneoscopic explorations on humans and several dozen dogs. This small group of cases obviously cannot be the basis for correct statistical analysis. Twenty-one of these were cases of atrophic cirrhosis of the liver. Eight were cases of generalized peritoneal carcinomatosis. Two were unruptured ectopic pregnancies. One was a case of primary carcinoma of the liver, 2 more cases were carcinoma of the head of the pancreas. Two were primary carcinoma of the ovary with spread. The remaining 6 consisted of 4 cases of carcinoma of the stomach, 1 with liver metastases, 1 case of ovarian cyst, 1 case of mesenteric cyst, and 1 case of tuberculous peritonitis.

In this group 13 biopsies were taken without mishap. Only 4 cases were incorrectly diagnosed. The mesenteric cyst was not seen; a case of carcinoma of the stomach with liver metastases was not discovered because the liver metastases were confined to the right lobe under the ribs where visualization was difficult even at operation; and 2 cases of early cirrhosis were not recognized. The diagnostic error was 9.3 per cent, or 90.7 per cent accuracy. This figure is high; it is obviously not statistically important. The percentage of correct clinical diagnoses in these cases was 65 per cent. The cases were selected carefully; complete medical and surgical work-up was made of each of the patients including all necessary laboratory and X-ray analysis beforehand. All of these conditions added to the selection and accuracy of diagnosis; in numerous instances the peritoneoscope merely confirmed conclusively the clinical diagnosis. It has been most evident to me that peritoneoscopy should not be performed as a short-cut to diagnosis but as an adjunct to a complete history, physical examination and necessary X-ray and laboratory examinations. The substitute for thoroughness has not yet been discovered.

SUMMARY AND CONCLUSIONS

Laparoscopy is another step on the road to diagnostic directness. It offers a virgin field for development. Perhaps it may lend itself with modification to a spectacular future when its applicability will be widespread both in diagnosis and therapy. Peritoneoscopy is a valuable though limited adjunct to medical and surgical diagnosis. It is a minor operation under local anesthesia, requiring minimum hospitalization and is, relatively speaking, an inexpensive procedure. The danger is minimal. There are several contraindications and disadvantages to its use.

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President's Page

RED-LETTER DAYS

As we all know, there is such a thing as having too many good things from which to choose. Under these circumstances we are liable to become unappreciative. This seems to be the state of doctors in the Nation's Capital.

We have in and near Washington at the present time some of the greatest living scientists. Many of them are eminent doctors of medicine. It is not only our good fortune that these men are in our midst, but that they so willingly take the time to impart their knowledge to their colleagues. For example, many distinguished physicians, most of them in the armed services, have accepted invitations to participate in the scientific program of the 15th ANNUAL SCIENTIFIC ASSEMBLY which will be held at the Mayflower Hotel on September 30, October 1 and 2, 1943.

I hope that all members will appreciate how fortunate they are to hear these men. It can be truly said that the program of this year's ASSEMBLY cannot be duplicated by any state medical organization in this country. In view of this, the days on which the ASSEMBLY are to be held are truly red-letter days and should be so considered by every doctor able to attend, whether he be in civilian practice or in the armed services.

So I say to every physician who reads my message—do not miss this year's ASSEMBLY. In justice to yourself and your patients, you should set aside these three days for the purpose of enlarging the scope of your scientific knowledge and refreshing your viewpoint on the practice of medicine. Don't allow yourself to get into a groove. Take in all the meetings that you can. It is the only way for you to grow scientifically.

Fred R. Sanderson

Medical Progress Since Pearl Harbor

15th

ANNUAL SCIENTIFIC ASSEMBLY

of

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

★

Sept. 30, Oct. 1, 2, 1943
MAYFLOWER HOTEL

Medicine In Wartime

The 15th Annual Scientific Assembly will be unique in many respects. To begin with, it will be one of the most ambitious scientific meetings held in the country this year. In so far as Washington is concerned, there will be no other medical meeting in 1943 to compare with it. Internationally known physicians and scientists will appear on the three-day scientific program, many of them now in the military services stationed in or near the Nation's Capitol. The topics to be discussed are of unusual interest to every medical practitioner, whether he be in civilian practice or in the armed services.

The theme of the Assembly is appropriately Medical Progress Since Pearl Harbor. This theme has never been lost sight of by the Committee on Arrangements in making its plans for this year's meeting. For example, in the Scientific and Public Health Exhibits there will be found displays of the Army, the Navy and the United States Public Health Service. All of these branches of the Government will also participate in the scientific program. An examination of the preliminary program will disclose that a number of civilian medical organizations and institutions will also be represented.

Last year, for the first time, social functions were planned with the emergency in mind. The war has deepened since that time. However, luncheons will be given by the Society, the Georgetown Medical Alumni Association, and the George Washington University Medical Society. Physicians in attendance will be afforded ample opportunity to renew acquaintances.

An unusual feature of the Assembly will be the Nutrition Exhibit and Demonstrations. This feature should attract many physicians and others attending the Assembly because of the widespread interest in the food problem.

In times such as these, one cannot be sure what the future holds. The advice I wish to give doctors examining the preliminary program of this year's Assembly is to take advantage of the opportunity when it is at hand. If you live within reasonable distance by train from Washington, it will be well worth your while to attend the Assembly. Should you reside in Washington or near by, it would be nothing short of inexcusable negligence for you not to make it a point to be present.

Note the Dates on Your Calendar Now! September 30, October 1 and 2, 1943. Plan to set aside these days for self-improvement and relaxation.

Arnold McNitt

General Chairman
Committee on Arrangements

Medical Progress Since Pearl Harbor

ALL SESSIONS IN GRAND BALLROOM, MAYFLOWER HOTEL

THURSDAY, SEPTEMBER 30—MORNING SESSION

CARE OF COMBAT AND CIVILIAN CASUALTIES—I

TREATMENT OF INJURIES IN COMBAT ZONES

9:00 **Colonel Raymond E. Scott**
Medical Corps, U. S. Army

9:30 **Captain C. M. Shaar**
Medical Corps, U. S. Navy; Chief of Surgery, U. S. Naval Hospital, Philadelphia

TREATMENT AFTER EVACUATION FROM COMBAT ZONES

10:05 INJURIES OF THE HEAD
Captain Winchell M. Craig
Medical Corps, U.S.N.R.; Chief of Surgery, U. S. Naval Hospital, Bethesda, Md.; formerly Professor of Neurosurgery, Mayo Foundation

10:25 RECESS

10:45 INJURIES OF THE CHEST
Major Brian B. Blades
Medical Corps, U. S. Army; Chief of Thoracic Surgery Section, Walter Reed General Hospital

11:10 INJURIES OF THE ABDOMEN
Comdr. Louis E. Gilje
Medical Corps, U. S. Navy; Member of Surgical Staff, National Naval Medical Center, Bethesda, Md.

THURSDAY, SEPTEMBER 30—AFTERNOON SESSION

CARE OF COMBAT AND CIVILIAN CASUALTIES—II

2:00 INJURIES OF THE GENITOURINARY TRACT
Colonel Lloyd G. Lewis
Medical Corps, U. S. Army; Chief of Urological Section and Assistant Chief of Surgery, Walter Reed General Hospital

2:25 INJURIES OF BONES AND JOINTS
Robert V. Funsten, M.D.
Professor of Orthopedics, University of Virginia Department of Medicine, Charlottesville

2:50 PERIPHERAL NERVE INJURIES
Claude C. Coleman, M.D., F.A.C.S.
Professor of Neurological Surgery, Medical College of Virginia, Richmond

3:15 RECESS

3:35 PLASTIC SURGERY
Robert H. Ivy, M.D., F.A.C.S.
Professor of Maxillo-Facial Surgery, University of Pennsylvania School of Medicine

4:00 SULFONAMIDES IN PREVENTION AND TREATMENT OF WOUND INFECTION
Major General Norman T. Kirk
Surgeon General of the United States Army

FRIDAY, OCTOBER 1—MORNING SESSION

WARTIME MEDICAL PROBLEMS—I

9:00 Neuropsychiatric Problems in the Army
Colonel Roy D. Halloran
Medical Corps, U. S. Army; formerly Professor of Clinical Psychiatry, Tufts College Medical School, Boston

9:25 Epidemic Keratoconjunctivitis
Major Murray Sanders
Medical Corps, U. S. Army; Member, Commission on Neurotropic Virus Diseases, Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army

9:50 War on Appendicitis
Edward A. Cafritz, M.D., F.A.C.S.
Clinical Instructor in Surgery, George Washington University School of Medicine

10:15 Recess

10:35 Sulfonamides in the Preparation and Care of Patients for Intestinal Operations
Henry W. Cave, M.D., F.A.C.S.
Assistant Clinical Professor of Surgery, Columbia University College of Physicians and Surgeons

11:00 Present Day Management of Venereal Diseases in the Armed Services
Lt. Col. Thomas B. Turner
Medical Corps, U. S. Army; Chief of the Venereal Disease Control Branch of the Preventive Medicine Division, Office of the Surgeon General

11:25 Cirrhosis of the Liver
A. C. Ivy, M.D., F.A.C.P.
Nathan Smith Davis Professor of Physiology and Pharmacology, Northwestern University School of Medicine

FRIDAY, OCTOBER 1—AFTERNOON SESSION

WARTIME MEDICAL PROBLEMS—II

2:00 Pandemic Influenza
Thomas Parran, M.D., F.A.C.P.
Surgeon General of the United States Public Health Service

2:25 The Pneumonias
Jesse G. M. Bullowa, M.D., F.A.C.P.
Clinical Professor of Medicine, New York University College of Medicine

2:50 The Renal Lesions of the Crush Syndrome and Other Forms of Hemoglobinuric Nephrosis
Lt. Col. Balduin Lucké
Medical Corps, U. S. Army; formerly Professor of Pathology, University of Pennsylvania School of Medicine

3:15 Recess

3:35 Meningitis—Its Diagnosis and Treatment
Captain Emanuel B. Schoenbach
Medical Corps, Meningococcal Meningitis Commission, U. S. Army

4:00 Nursing Experiences on Bataan
Captain Juanita Redmond
Army Nurse Corps; Assistant, Nursing Division, Office of the Air Surgeon

SATURDAY, OCTOBER 2—MORNING SESSION

PANEL DISCUSSION ON PROBLEMS IN WARTIME CIVILIAN MEDICAL PRACTICE

9:00 Endemic and Epidemic Diseases, Including Tropical Diseases
R. E. Dyer, M.D.
Director, National Institute of Health, Bethesda, Md.

9:25 Medical Service in Industry
Philip Drinker
Chief Health Consultant, U. S. Maritime Commission; formerly Professor of Industrial Hygiene, Harvard School of Public Health

9:50 Civilian Medical Practice
Warfield T. Longcope, M.D., F.A.C.P.
Physician-in-Chief, Johns Hopkins Hospital

10:15 Recess

10:35 Civilian Surgical Practice
Harvey B. Stone, M.D., F.A.C.S.
Associate Professor of Surgery, Johns Hopkins University School of Medicine

10:55 Hospital and Administrative Problems
Malcolm T. MacEachern, M.D.
Associate Director, American College of Surgeons

11:20 Some Medical Lessons of Mobilization
Arthur C. Christie, M.D., F.A.C.P.
Professor of Clinical Radiology, Georgetown University School of Medicine

SATURDAY, OCTOBER 2—AFTERNOON SESSION

ADVANCES IN LABORATORY PROCEDURES

2:00 Blood Transfusions with Special Reference to Reactions and the R_H Factor
O. B. Hunter, M.D., F.A.C.P.
Washington, D.C.

2:25 The Current Status of Blood Substitutes
John B. Alsever, M.D.
Surgeon (R) U. S. Public Health Service; Technical Director, Blood Plasma Section, U. S. Office of Civilian Defense

2:50 Recent Advances in X-Ray
Lt. Col. A. O. Hampton
Medical Corps, U. S. Army; Chief, X-Ray Department, Walter Reed General Hospital

3:15 Recess

SPECIAL PRESENTATIONS

3:35 Malaria—Its Control and Treatment
Comdr. Omar J. Brown
Medical Corps, U. S. Navy; in charge of the Section on Tropical Medicine, Bureau of Medicine and Surgery

4:00 Problems of Postwar Medicine
Rear Admiral Ross T. McIntire
Surgeon General of the Navy

4:30 Medical Experiences in Army Warfare
Brig. Gen. Albert W. Kenner
Medical Corps, U. S. Army

Synopsis of Program

(All meetings at the Mayflower Hotel)

THURSDAY, SEPTEMBER 30, 1943

9:00 A.M.–11:40 A.M.: Scientific Program

12:00 M.–1:30 P.M.: Medical Society Luncheon, Grand Ballroom

Speaker: Major General Norman T. Kirk
Surgeon General of the U. S. Army

2:00 P.M.–4:30 P.M.: Scientific Program

7:00 P.M.: Women's Medical Society Dinner, Sapphire Room

Speaker: Major Margaret D. Craighill
Medical Corps, U. S. Army

Subject: "Women in the Army Medical Department"

8:00 P.M.: **SPECIAL.** Nutrition Exhibit and Demonstrations. Physicians, their families and friends invited.

FRIDAY, OCTOBER 1, 1943

9:00 A.M.–11:40 A.M.: Scientific Program

12:00 M.–1:30 P.M.: George Washington University Medical Society Luncheon, Grand Ballroom

Speaker: Dr. J. Heng Liu
Former Minister of Public Health for the Government of China

Subject: "Medical Progress in China"

2:00 P.M.–4:30 P.M.: Scientific Program

8:30 P.M.: Public Meeting, Grand Ballroom

Nationally Known Speaker
to be Announced

SATURDAY, OCTOBER 2, 1943

9:00 A.M.–11:40 A.M.: Scientific Program

12:00 M.–1:30 P.M.: Georgetown University Medical Alumni Association Luncheon, Grand Ballroom

Speaker: Mr. Edward T. Folliard
Journalist and Radio Commentator

Subject: "What Is Happening to Our World"

2:00 P.M.–5:00 P.M.: Scientific Program

7:30 P.M.: Surgeons General Night, Reception and Special Program

Scientific and Public Health Exhibits

The Scientific and Public Health Exhibits will be shown in the Chinese Room, the Pan American Room and the Seventeenth Street Parlor at the Mayflower Hotel. A motion picture booth will be located adjacent to the Chinese Room. There will be a continuous showing of films on various scientific subjects.

SCIENTIFIC EXHIBIT

Subject	*Sponsors*
One Year of Refrigeration	Emil J. C. Hildenbrand, M.D., Associate Professor in Chemical Surgery, Georgetown University School of Medicine
Physical Therapy Technics	American Congress of Physical Therapy, Washington Chapter
Intravenous Use of Amino Acid Solutions	Charles S. White, M.D., J. Lloyd Collins, M.D., and, Jacob J. Weinstein, M.D., Department of Surgery, George Washington University School of Medicine, and Gallinger Municipal Hospital
Surgery of Venous Thrombosis	J. Ross Veal, M.D., and Hugh H. Hussey, M.D., Gallinger Municipal Hospital and Georgetown University School of Medicine
Surgical Anatomy of the Foot	Philip Caulfield, M.D., Joseph McCarthy, Jr., M.D., and F. A. Martinez, M.D.
Tropical and Exotic Diseases	Donald Butts, M.D., Department of Bacteriology, Georgetown University School of Medicine
Progressive Ulceration of the Abdominal Wall (Amoebiasis Cutis)	Oscar B. Hunter, M.D.
Renal Lesions of the Crush Syndrome and Other Forms of Hemoglobinuric Nephrosis and the Pathology of Epidemic Hepatitis	Office of the Surgeon General, United States Army
Parasitology	Eugene R. Whitmore, M.D., Department of Parasitology and Pathology, Georgetown University School of Medicine, and Doctors Hospital
Demonstrations by Naval Medical Research Institute and United States Naval Hospital and Naval Medical School Chemical method for obtaining drinking water from sea water; automatic photofluorographic camera; lucite calvarium for direct observation of brain; electron microscopy; penicillin cultures; blood and blood derivatives, etc.	Medical Department, United States Navy
Care versus Caries	Carroll E. Palmer, M.D., and Henry Klein, D.D.S., National Institute of Health, U. S. Public Health Service
Results of Psychotherapy	Benjamin Karpman, M.D.
Office of the District Coroner	A. Magruder MacDonald, M.D., Christopher J. Murphy, M.D., and Richard M. Rosenberg, M.D.; Captain John A. Fowler, Metropolitan Police Department
Pharmacology of the Human Gravid Uterus	Howard F. Kane, M.D., A. R. Abarbanel, M.D., Department of Obstetrics and Gynecology, George Washington University School of Medicine

PUBLIC HEALTH EXHIBIT

Subject	*Sponsors*
Nursing on the Home Front	Instructive Visiting Nurse Society of Washington, D. C.
What the General Practitioner Should Know about Glaucoma	District of Columbia Society for the Prevention of Blindness
Occupational Therapy	St. Elizabeths Hospital, Occupational Therapy Department
The Contribution of District of Columbia Physicians to the War	United States Public Health Service and the Medical Society of the District of Columbia
War Nursing Activities	Red Cross Recruitment Service
War Work with a Future	Graduate Nurses' Association of the District of Columbia
Demonstrations	American Red Cross
Demonstrations	Washington Heart Association
Malaria Prevention in the District of Columbia; Rabies Control in the District of Columbia; Exhibit of Bureau of Venereal Diseases; Exhibit of Bureau for Tuberculosis	District of Columbia Health Department
Demonstrations	District of Columbia Social Hygiene Society
Model Hospital Nursery	Children's Bureau, U. S. Department of Labor
Demonstrations	Council of Social Agencies

MOTION PICTURES

The Management of Labor under Continuous Caudal Anesthesia	Aaron H. Gerber, M.D.
Gastric Resection under Continuous Spinal Anesthesia	Joseph P. Shearer, M.D.
The Diagnosis and Management of Gonorrhea	United States Public Health Service
Refrigeration Anesthesia	Emil J. C. Hildenbrand, M.D.
The Medical Department in Amphibious Assault	Medical Department, U. S. Navy
Battle Station First Aid	Medical Department, U. S. Navy
The Life and Cycle of the Endamoeba Histolytica	Medical Department, U. S. Navy
Torn Internal Semilunar Cartilage of the Knee	Julius S. Neviaser, M.D.

Technical Exhibit

All available space in the Technical Exhibit was contracted for months ago. This exhibit will be on display, as in previous years, in the Promenade of the Mayflower Hotel. Thirty-six firms are participating. They are as follows:

American Hospital Supply Corporation	(Booth 38)
American Safety Razor Corporation	(Booth 23)
Appleton-Century Company	(Booth 24)
Beuchler's	(Booth 4)
Bilhuber-Knoll Corporation	(Booth 28)
Borden Company	(Booth 13)
Burroughs, Wellcome & Company	(Booths 34 and 35)
Camel Cigarettes	(Booths 15 and 16)
CIBA Pharmaceutical Company	(Booth 12)
Credit Bureau	(Booth 18)
Doak Company	(Booth 10)
Doho Chemical Corporation	(Booth 7)
Fleet, C. B., Company	(Booth 29)
Gibson Company	(Booth 31)
Haskell, Charles C., & Company	(Booth 27)
Junket Folks	(Booth 36)
Kloman Instrument Company	(Booth 1)
Lilly, Eli, & Company	(Booth 6)
Mallinckrodt Chemical Works	(Booth 3)
Maxwell & Tennyson	(Booth 2)
Mead Johnson & Company	(Booth 11)
Parke, Davis & Company	(Booth 33)
Peoples Drug Stores	(Booth 25)

Petrogalar Laboratories	(Booth 30)
Philip Morris & Company, Ltd.	(Booth 32)
Saunders, W. B., & Company	(Booth 5)
Sharp & Dohme	(Booth 14)
SMA Corporation	(Booth 19)
Smith, Kline & French Laboratories	(Booth 37)
Spencer, Inc.	(Booth 19A)
Squibb, E. R., & Sons	(Booth 8)
U. S. Vitamin Corporation	(Booth 22A)
Walker Vitamin Company	(Booth 26)
White Laboratories	(Booth 9)
Wyeth, John, & Company	(Booth 17)
Young, F. E., & Company	(Booth 22)

Mayflower Hotel

Nutrition Exhibit and Demonstrations

An unusual and timely feature of the Assembly this year will be the Nutrition Exhibit and Demonstrations, which will be held in the North Room of the Mayflower Hotel. The Exhibit will be open from 9:00 a.m. to 5:00 p.m.

Highly interesting and instructive programs have been planned for each day. From 10:30 a.m. to 12:30 p.m. and from 2:30 p.m. to 3:30 p.m. daily, motion pictures on various aspects of nutrition will be shown. They include some of the finest that have been made on this subject. From 3:00 p.m. to 5:00 p.m. there will be demonstrations put on by widely known authorities in dietetics. These will not only be of interest to physicians but to other groups interested in the field of dietetics.

Invitations will be extended to physicians and their wives, nurses, dietitians and other interested groups. Coöperating in this undertaking will be the Woman's Auxiliary to the Medical Society of the District of Columbia.

Registration

Promenade at the Mayflower

Arrangements have been made to facilitate registration of members of the Society by registering those who find it convenient at the Medical Society's office from 2:00 to 5:00 p.m. on Wednesday, September 29. Registration will begin at the Mayflower Hotel at 9:00 a.m. on Thursday, September 30, for members of the Society, physicians in the military services, and out-of-town guests. Special provisions have been made for registering dentists, nurses, pharmacists, residents, interns, medical students and others who wish to attend some of the sessions. No one will be admitted to the scientific sessions without a badge which, together with the official program, is obtainable at the registration desk.

All who register prior to 11:00 a.m., Thursday, September 30, will be given tickets for the Thursday luncheon. There will be no charge to members of the Society. Out-of-town physicians and other non-members of the Society will be required to pay a registration fee of $3.00 which will include a ticket to the luncheon. Physicians in the military services will be registered without charge. However, their registration will not include a luncheon ticket. Tickets for the luncheon may be purchased by non-members of the Society for $1.50. Tickets for the luncheons to be given by the George Washington University Medical Society and the Georgetown University Medical Alumni Association can also be obtained at the registration desk.

Editorials

MEDICAL PROGRESS SINCE PEARL HARBOR

It has become our fashion to think of our relation to the present war as beginning on December 7, 1941. Actually, of course, preparations for the struggle began long before the Japanese bombed Pearl Harbor. It is a fact, however, that these preparations were puny by comparison with the accomplishments of the past 18 months. This holds true of medical research attributable directly to the war just as much as for the manufacture of lethal weapons.

By its nature war causes the release of a tremendous amount of energy in a relatively short period of time. Necessarily, a good deal of this energy is wasted, but the total quantity is so great that acceleration of our progress is a natural result. In medicine we have come far and come fast, partly because of the splendid organization of our research facilities and partly due to the unique opportunities for research that war provides. Many of our medical gains have been published, some have been publicized, and some are still unrevealed either because they are too recent or because they are essential to our national security.

But published, publicized, or unrevealed, the increment in our medical knowledge tends to be obscured by the rapid pace of its development. For most of us the conditions are analogous to those of an airplane flight at high altitude. Not until the plane is brought to earth can the passengers fully estimate the speed of travel and the distance covered. The 15th ANNUAL SCIENTIFIC ASSEMBLY with its review of medical progress since Pearl Harbor therefore is especially opportune. To read the titles of the papers and names of the participants is to be convinced that we are about to come back to earth for a time.

H. H. H.

DOCTORS EXPRESS THEIR OPINIONS

Last May, President A. Magruder MacDonald wrote members of the Medical Society of the District of Columbia a letter in which he said that physicians realize the war and its aftermath will have a profound effect upon the future of medical practice. He gave assurance, however, that officers of the Society, being cognizant of this fact, were endeavoring to guide the affairs of the organization in such a manner that whatever lies ahead, it will not fail in its obligations to the citizens of this community and the medical profession. He said it was very important that the officers be informed in regard to the sentiment of Society members and requested an expression of their views on the present medical situation and its implications for the future. He also asked for comments on the manner in which the Society and the American Medical Association are meeting medical problems of the day.

A majority of those who replied commended the leadership of the Society and the Association. A few were dissatisfied and said that organized medicine had lacked foresight and had failed to act when it should.

The replies might be roughly divided as follows: (1) Those who believe that the medical profession should oppose the Government's attempt to interfere in medicine, and (2) those who believe changes are inevitable; therefore, medicine should take the initiative so that the quality of medical care will be maintained.

Many of the communications make interesting reading and if it were not for the limitation of space, they would be published in these columns. There were a number who expressed the same ideas from different viewpoints. For example, there were those unalterably opposed to change, come what may, or who believed that the people themselves, if properly informed, would reject any tampering by the Government with individualistic type of practice. A majority, however, believed that changes were inevitable and that it was better to anticipate them.

Among the concrete suggestions offered by this group were the following:

1. The Medical Society should sponsor a prepayment plan for individuals of moderate means.
2. Prepare now for rehabilitation of physicians in the armed services.
3. Establish diagnostic clinics for the lower income groups. It was proposed that these clinics be privately owned and operated.

There was unanimity of opinion in regard to the desirability of the Society again sponsoring a prepayment medical service plan, one writer stating that "some sort of health insurance after the war is inevitable."

Several also urged the Society to prepare for the return of medical officers to civilian life. One suggested that these physicians be given part-time employment by schools, health departments and other local government agencies, thereby assisting them to rehabilitate themselves financially. Postgraduate training for these men was proposed by several.

In regard to diagnostic clinics, no detailed suggestions were made. This proposal has been discussed informally on a number of occasions by local physicians who strongly advocate such clinics.

None of the communications advocated compulsory sickness insurance under Government control. A few expressed the belief that cooperation of the Government and medical organizations was essential to the successful operation of any plan.

Another physician observed that "ten million men are becoming accustomed to complete care, including free medical treatment. Another forty million laborers are accustomed to workmen's compensation for illness and injury. When the war is over what a powerful political bloc will return to civil life to influence the trend of affairs in America. Some sort of payment for medical services will be made through taxation and practitioners of the healing arts will be educated by the Government. . . ."

Although this writer struck the most pessimistic note of all, he is optimistic enough to believe that the medical profession can do something about it. He says, "I think the Medical Society of the District of Columbia and each of the state societies should at this time appoint a committee to formulate plans which will be acceptable to the profession in each locality. These regional groups should convene and out of their individual contributions there may come a plan devised by the profession itself for the future conduct of medicine in this country. Unless we do this, it will be done for us."

It is to be regretted that so few Society members responded to the President's request that they express themselves on these vital matters. If a large percentage of our membership had done so, it might have altered the impression conveyed by the communications which were received. This seems doubtful, however, for there was general agreement on the point that changes in medical practice are inevitable and that the medical profession must prepare for them now.

VENEREAL DISEASE CONTROL IN WASHINGTON

Much valuable newspaper publicity has been given the venereal disease problem in the District of Columbia. However, there has unfortunately been an occasional article which has caused more harm than good. An example of this was a recent article appearing in a Washington newspaper which generalized as follows: There are many selectees who are not in the armed services because of venereal disease; a substantial proportion of infected selectees are employed in food handling occupations. By implication the writer allowed the reader to conclude that food handling is a common method of transmission of venereal disease. Such news reporting by misinformed writers has frequently handicapped health officials in their efforts to control the spread of venereal disease. Clinics have become overburdened with late syphilitics who would have the greatest difficulty in transmitting their infections to others. In consequence treatment of those with the disease in its early or infectious stage has been hampered because of a limited professional staff. Even though many cases of syphilis exist in the District, it is safe to assume that relatively few (compared to the total figure) could possibly be responsible for the spread of this infection.

The control of persons with infectious syphilis, as well as the treatment of the non-infectious syphilitic, could be aided appreciably under the following conditions:

1. If every physician diagnosing an infectious case of syphilis would consider it his responsibility to the community to see to it that the patient under his care is treated either by himself or in a clinic until he is at least rendered non-infectious.
2. If persons reputedly promiscuous or delinquent in the infectious stage were isolated and given a complete treatment.
3. If it were realized that many untreated non-infectious syphilitics may ultimately be confined to public institutions or placed on relief rolls, and that adequate treatment would reduce this group to a minimum.
4. If there were full realization that syphilis control, as well as the control of all other communicable venereal diseases, is a community problem and not solely an individual matter. This implies the reporting of all such cases by physicians to the District Health Department; instructing patients how to prevent the spread of diseases; assistance in seeking out, examining and properly disposing of all possible infected contacts; and requesting the Health Department's assistance whenever necessary for control purposes.
5. If the public were properly informed in regard to the facts concerning venereal diseases.

FREDERICK G. GILLICK, M.D.
Acting Director, Bureau of Venereal Diseases

MEETINGS

Thursday, Friday, Saturday, September 30, October 1 and 2

15th ANNUAL SCIENTIFIC ASSEMBLY
See program elsewhere in this issue.

Wednesday, October 13

DAVIDSON LECTURE
Speaker and title of essay to be announced.

Wednesday, October 27

SYMPOSIUM ON MENINGOCOCCIC MENINGITIS

1. "The Prevalence of the Disease in the District of Columbia and the Country as a Whole." C. C. DAUER, M. D., Epidemiologist, District Health Department
2. "Diagnosis." LOUIS K. SWEET, M.D., Chief Medical Officer in Pediatrics, Gallinger Municipal Hospital
3. "Treatment of 140 Cases." MARK H. LEPPER, M.D., formerly Fellow in Medicine, AND EDITH DUMOFF, M.D., Fellow in Medicine, George Washington University School of Medicine
4. "Use of the Newer Sulfonamides in Meningitis and Other Infectious Diseases." HARRY F. DOWLING, M.D., Clinical Professor of Medicine, George Washington University School of Medicine

In and Out of Focus

BY THE OBSERVER

Unseen News Stories

One never ceases to wonder at the inconsistencies of human nature. Nearly all of us, for example, see what we want to see and hear what we want to hear. It is amusing how often we observe things we aren't supposed to see. The keen hearing of the supposedly deaf person when an attempt is made to keep a secret from him is proverbial. Well, physicians are just like other people in this regard.

This Observer has often heard doctors say that the press is unfavorable to the medical profession; that it exaggerates and is unreliable; that the doctor's viewpoint is seldom presented; and that generally speaking newspapers cannot be counted upon to present facts objectively. These statements are only partially true. The fact is, some doctors expect medical news stories to be written in the eulogistic vein. They forget or do not know that reporters are under instructions to determine the facts and report them without distortion. This does not hold true in regard to all newspapers, but most of them endeavor to be fair in their news columns, whatever attitude they take on the editorial page. One of the general rules laid down for reporters is that they must not editorialize in a news story. If this sort of thing were allowed, our newspapers would lose their standing in public estimation.

If the medical profession desires "a good press" it must see to it that what it does is constructive and of interest to the public. There is no other way to appear favorably in newspapers.

Now, as to the inconsistencies of doctors in regard to medical news stories, it has been surprising how many have seen those in which the medical profession does not appear in a favorable light. The item may be ever so small but it is seldom missed. Some have called the Society's office much upset in regard to them. Seldom has there been a call about favorable stories even when they hit the front page. In fact, inquiries among physicians often reveal that they were overlooked.

This Observer can arrive at only one conclusion. A good unseen news story is no match for a small, unfavorable item tucked away on page ten where doctors are concerned.

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Rationing vs. Overweight

There appears an unusually interesting article in the June 1943 *Statistical Bulletin*[*] on "Ideal Weights for Men." In it the *Bulletin* charges that overeating, which in peacetime is "an indefensible habit of self-indulgence," in wartime is "scandalous," and that rationing should prove "a blessing to overweights."

The following table of "ideal" weights published in connection with the article will be of interest to our readers.

"Ideal" Weights for Men

Ages 25 and Over

Height (with shoes)		Weight in Pounds (as ordinarily dressed)		
		Small frame	Medium Frame	Large Frame
feet	*inches*			
5	2	116–125	124–133	131–142
5	3	119–128	127–136	133–144
5	4	122–132	130–140	137–149
5	5	126–136	134–144	141–153
5	6	129–139	137–147	145–157
5	7	133–143	141–151	149–162
5	8	136–147	145–156	153–166
5	9	140–151	149–160	157–170
5	10	144–155	153–164	161–175
5	11	148–159	157–168	165–180
6	0	152–164	161–173	169–185
6	1	157–169	166–178	174–190
6	2	163–175	171–184	179–196
6	3	168–180	176–189	184–202

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[*] Published by the Metropolitan Life Insurance Company.

The *Bulletin* comments on the preceding table as follows:

> "The weight tables commonly used heretofore were based upon average weights and showed a progressive increase with age. Thus, even for men of medium height, the averages rose 12 pounds between ages 25 and 50. Statistical investigation has shown such increases to be undesirable from the standpoint of health and longevity."

The *Bulletin* advances the following health reasons for the control of one's weight:

> "It should be more generally known that even the carefully selected overweights accepted for life insurance have a mortality appreciably above that of their slenderer fellows. In fact, so conscious are life insurance companies of the bad effect of overweight on longevity, that this condition is the most common cause of restriction of coverage to substandard insurance. The excess mortality increases with the degree of overweight. Those with 20 per cent overweight show mortality approximately one third higher than average; those with 30 per cent overweight, approximately one half higher; those with 50 per cent overweight show mortality practically double that for average weight. The contrast, especially after midlife, is greater if comparison is made with underweight men, whose mortality is even lower than that of average weight men. These comparisons, unfavorable as they are to overweight men, are based upon the best of the group. If all overweights were included, their unfavorable longevity would be even more pronounced.
>
> "Overweight, particularly if it is of substantial degree, puts a very real strain on practically all vital functions of the body, hastens deterioration, and eventually brings about premature death. This is indicated by the earlier development among overweights of the diseases of the heart, kidneys, and blood vessels. The mortality from coronary artery disease and other degenerative heart conditions among overweights is more than $1\frac{1}{2}$ times that of average-weight men; for chronic nephritis the mortality is about $1\frac{3}{4}$ times as high. Similarly, the death rates from liver and gall bladder diseases and from appendicitis are higher among overweights than among those of slighter build. In part, this extra mortality arises from the fact that the obese are generally poorer surgical risks than normal and underweight men.
>
> "Relatively, the most striking penalty for overweight is diabetes. The death rate from this disease among men 25 per cent or more overweight, has been found eight times as high as among average weight persons; and as compared with underweights, 13 times as high."

Living Under High Pressure

Anyone who has attended meetings of luncheon clubs in Washington knows how restless many of the members become. The luncheon is hardly over before there is an exodus of men who to all appearances are in very much of a hurry. Apparently there is urgent business which requires their immediate attention. This Observer has often wondered if the business at hand is really as important as these individuals seem to think, and if they would not do better to slacken their pace a bit. As one table companion remarked to me when a few members hustled by for the exits, "They act as if they thought they were going to live forever."

These may be unfair conclusions, for many members of these clubs are important executives. Nevertheless, if these men knew the price they are probably paying physically and sometimes mentally for their high pressure existence, it is doubtful if some of their activities would seem so important to them. Of course, there are those who, even though they knew the penalty they might have to pay, would rather be short-lived than give up their way of life.

Dr. Walter C. Alverez of Mayo Clinic had something to say on this subject before the Conference on Industrial Health in Chicago last January. He said in part:

> "I need hardly remind you that a good executive is not easy to find or develop. To begin with, the necessary endowment of a fine brain, great energy, great endurance, ambition and willingness to assume responsibility, good judgment, skill in handling and leading men, and a tendency to deal fairly with them are rarely found combined in one person. Then there must come the years of technical training and experience that are needed to fit a man for a supervisory position in modern industry. Evidently every able executive in industry today is a tremendous asset not only to his company but to the country as a whole and every effort should be made to keep him fit and to prolong his period of useful life.
>
> "That something needs to be done along these lines can be seen from the fact that the mortality of executives and other overburdened brainworkers, and the incidence of serious degenerative diseases among them, appear to

> be considerably higher than they are among men who work with their hands. In a recent study of 176 middle-aged executives of one company, Habein found that 13 per cent had a decided increase in blood pressure, 3 per cent were already suffering with angina pectoris, 3 per cent had gout, 2 per cent had diabetes and 18 per cent were suffering from duodenal ulcer. Other studies have shown that physicians, who work hard much as executives do, tend to die five or six years before their time, usually with diseases of the heart and arteries; and as one should expect, the more successful and hardworking the man, the shorter is likely to be his life."

Speaking of the bad habits of executives, Dr. Alvarez says:

> "As Doctor Habein pointed out in his study of the lives and living habits of executives, they not only work too long hours in the office but most of their time outside is taken up with talking shop and making contacts which will be helpful to them in their business. The usual executive is a man who lives intensely and lustily and does strenuously whatever he sets out to do. Often he eats too much and this tends to bring disaster. It fills the blood with poorly burned toxins, it adds to the load on the heart and kidneys and it favors the development of degenerative diseases such as hypertension, gout, diabetes and arthritis.
>
> "Most executives, because of their nervous tension, tend to smoke too much. Doctor Habein found that 62 per cent smoked over a pack of cigarettes a day, 27 per cent smoked two packs and 21 per cent smoked more than two packs. A few years ago, Raymond Pearl, the world's greatest authority on longevity, published statistics to show that between the ages of thirty and fifty years, one out of five heavy smokers dies before his time, which suggests that heavy smoking is even more harmful than is fairly heavy drinking. A few executives drink a little more than is good for them but most of them are moderate because they know so well that if they drink too much they will no longer be clearheaded and efficient.
>
> "Doubtless many waste a great deal of nervous energy each day in 'flying off the handle' at employees and others. This sort of thing is very tiring and it injures the body, not only of the man who does the bawling out, but of the poor unfortunate 'bawlees' who are left hurt and shamed and rebellious. I often tell executives of my experience once with an extremely choleric old millionaire who when he got good and angry with a man sometimes threw him out through the glass door of his office. When I was able to show him that in one of these tantrums his blood pressure jumped from its usual 170 mm. to 230 mm. of mercury he became alarmed and promised to mend his ways. Later, his secretary told me that the old gentleman had done remarkably well until one day when he saw that a man was trying to cheat him on a deal. His face turned red and he started to go into one of his rages, when suddenly he stopped and said to the offender, 'Quick, get the hell out of here,—I can't afford to get mad at you!' And so, ever since, I have said to short tempered patients, 'You can't afford to get angry at anyone. It is too expensive a luxury.' "

It might be a good thing for all of us, professional men as well as executives, to analyze our daily activities and determine once and for all if our living has been stepped up to too swift a pace, and if so, if we think it's worth the price. Perhaps our responsibilities justify our being actually as busy as we appear to be. On this point, however, your Observer is skeptical.

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"The Collection Plate . . ." Rarely Empty

Last month in these columns the medical profession's relations with the public were discussed by prominent individuals. This month, your Observer, having read what Mr. Robert L. Swain, Editor of *Drug Topics*, had to say on this subject, believes that a portion of his commencement address at the University of Tennessee in June of this year will be of particular interest to readers of the ANNALS.

Mr. Swain commented as follows on the Government's "interference" in the health field:

> "I deplore the prospect of governmental interference with the health professions. I abhor the possibility that these professions may come under political control. I tremble at the suggestion that our splendid systems of medical practice may themselves be under the hand of men who would bend these health professions to political ends.
>
> "But, when I have made these observations, let me say that there will be the socialization and regimentation of the medical specialties, unless the medical professions prove themselves worthy of the leadership which they claim they are able to give.
>
> "On the surface, one can hardly be expected to oppose the principles, purposes, and objectives of the Beveridge plan, or its American counterpart, the cradle-to-the-grave program of the National Resources Planning Board. While the plan submitted to Congress by the President is a mere statement of rather obscurely defined

objectives, and with no suggestion of how it could be financed or put in operation, no real objection can be raised against the spirit of the proposal.

"Obviously, the scheme is an attempt, however visionary it may be, at social betterment. It bespeaks a warmhearted solicitude for the general good. It appeals to our sense of decency, right, goodness, faith, hope and charity. It is, in fact, a cradle-to-the-grave program in which the federal government would assume the role of motherhood to the whole population.

"But, when we learn that the cost to us in America would be between fifteen billion dollars and fifty billion dollars annually, we begin to wonder even if a country as vast and wealthy as ours could afford so luxurious a social program. Obviously, such a proposal should be given the most thoughtful consideration, but we should bear in mind that if a grandiose social program were undertaken, only to be quickly abandoned, the whole urge for social betterment would suffer incalculable injury.

"The duty rests upon the medical professions to protect the public against what may well prove to be its own folly. Any scheme, program, plan, or purpose aimed at social betterment is bound to attract strong public support. There is always the urge to follow one's heart rather than his head. The collection plate is rarely turned away empty. The purpose being good, the means must be good."

Mr. Swain protests that he is not arguing for the continuance of the status quo in the health field, but he says there can be no proper valuation of our medical needs unless the public knows from a factual standpoint just what has already been accomplished. He then cites the things that the public has not been told in a manner sufficiently effective to impress them. He mentions the lower incidence of disease here than in any other country in the world; the fact that the death rate in this country is the lowest in our history; that contagious and infectious diseases have dropped so low that they are no longer among the major causes of death; that due to research, splendid progress is being made in medicine, dentistry, pharmacy and nursing, and that health programs now under way have been made possible through the combined efforts of the medical and dental professions, health agencies and the pharmacists.

Mr. Swain admits that "while change may be necessary, desirable and inevitable, the medical profession does itself and the public a distinct disservice when they permit themselves to follow a course dictated by mere expedience." He then pleads for closer coöperation between the allied health professions, suggesting the organization of a National Health Advisory Council in which each will be represented.

In regard to this proposal, the District of Columbia has apparently led the way. Three years ago, the Interprofessional Conference of Washington was organized. Participating in the Conference are representatives of the medical, dental, pharmaceutical and nursing organizations and the Hospital Superintendents' Association. Beginning with July 1, 1943, each organization was asked to appoint three representatives in addition to the President and Secretary, who are automatically members of the Conference. The District Health Department and the United States Public Health Service have also been invited to appoint representatives to serve in an advisory capacity.

The Conference has already worthwhile accomplishments to its credit, particularly in the public relations field. Not the least of its value lies in the opportunity it provides for the discussion of mutual problems.

End of the Middle Class?

Senator Walter F. George, Chairman of the Senate Finance Committee, recently had something to say about future drastic increases of individual income taxes which should be of considerable interest to physicians. He warned that too heavy a tax burden might, as one news writer put it, "destroy the Nation's little man."

The Senator was quoted as follows:

"The virility and strength of any civilization depends upon the middle classes. There is no other way to pull

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War Section

OBTAIN YOUR PENNANT NOW

White pennants bearing the Civilian Defense insignia and numbers corresponding to the placards for automobile windshields issued physicians are now available at the Medical Society's office. Every physician should obtain his pennant as soon as possible because in a blackout he will not be allowed to drive his car without one.

Those physicians who are on hospital teams will obtain their pennants from the institutions with which they are connected.

6000 PHYSICIANS NEEDED BY ARMED FORCES

At a conference of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, held on July 31, with the War Participation Committee of the American Medical Association and in the presence of Mr. Paul V. McNutt, chairman of the War Manpower Commission and representatives of the Army and Navy medical departments and the Public Health Service, it became apparent that the medical profession must produce toward the winning of the war an additional six thousand physicians for the armed forces before January 1, 1944. Pursuant to a realization of this objective a directive has gone to the generals in command of the various service commands authorizing them to induct into the service physicians between the ages of 38 and 45 who have been declared available by the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians and who are otherwise subject to Selective Service.

The needs of the armed forces are real. The members of the War Participation Committee raised with the representatives of the various governmental agencies all the questions that have from time to time challenged the need; the challenge seems to have been met effectively. Indeed, the intimation was made clear that the needs of the armed forces will be met by specific regulations of the Selective Service Administration or the enactment of necessary legislation if required. All physicians up to 45 years of age who have been indicated as available have therefore placed on them now the responsibility for an immediate decision as to their enlistment with the armed forces. The need is so positive that questions of essentiality of men in positions of teaching and research and in industrial medicine are likely to be rigidly reviewed in the near future with a view to extracting from civilian life every one that can be spared.

As the war continues and intensifies new needs for the services of the medical profession become apparent. An army in motion and one engaged in the kind of aggressive combat that now concerns our armed forces needs physicians in even greater numbers than have heretofore been demanded. Many thousands of interned aliens and prisoners are now the burden of the United States and must be given medical care.

If there is any physician who still hesitates under these circumstances, he should realize the added advantage to him of accepting now the commission that is proffered. Should it become necessary in the near future, as seems quite likely, to enlist new activity by the Selective Service Administration and the Officers' Procurement Service to bring in the six thousand physicians that are so certainly required, those recruited by that technic will inevitably begin their service with the minimum commission that is offered, namely, that of first lieutenant. Until that

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On The Home Front

The Association of Military Surgeons of the United States will hold its 51st meeting at the Bellevue-Stratford Hotel, Philadelphia, October 21 to 23.

Medical officers of the armed forces who have been on actual duty in the various combat zones will report first hand on the United States medical services under combat in climatic conditions new to American arms. There will be reports and discussions on air evacuation, parachute injuries, the physiological aspects of high altitude flying and dive bombing, tropical medicine, blast injuries, amphibious operations, submarine warfare, immersion and temperature extremes, neurosurgical problems and the whole field of rehabilitation.

Among those who will participate in the meetings are Brigadier General Norman T. Kirk, Surgeon General of the Army, Rear Admiral Ross T. McIntire, Surgeon General of the Navy, and the Honorable Frank Knox, Secretary of the Navy.

The Sixteenth Graduate Fortnight of the New York Academy of Medicine will be held October 11 to 22. The subject for this year's meetings is "Disorders of the Digestive Tract." A registration fee of $5.00 will be charged non-members of the Academy. Further information may be secured from Dr. Mahlon Ashford, 2 East 103rd Street, New York 29, N. Y.

The Wartime Conference and 72nd Annual Business Meeting of the American Public Health Association will convene in New York City, October 12–14, with the Hotel Pennsylvania as headquarters. Half-day special sessions will be held on the following subjects: "Current Health Department Problems in War," "Tropical and Imported Diseases," "New Ventures toward Health Security and Postwar Planning."

Harvard Medical School will offer a Seminar in Legal Medicine, October 4 to 9, inclusive. The course will consist of autopsy demonstrations, technic and interpretation of laboratory tests, study of day-by-day cases of a medical examiner, and round table conferences. While it is planned particularly for medical examiners and coroners' physicians, other physicians are invited to attend. There is a $25.00 registration fee. Application should be made on or before October 1 to Harvard Medical School, Courses for Graduates, 25 Shattuck Street, Boston.

An all-day conference on medico-legal topics has been arranged for October 6 at the Mallory Institute of Pathology, Boston City Hospital, sponsored by the Massachusetts Medico-Legal Society in conjunction with the Department of Legal Medicine of Harvard Medical School. There will be no fee for this conference.

The officers of the **Section on Pathology and Laboratory Medicine** who served during the past year were reëlected for 1943–44. They are as follows:

Dr. Oscar B. Hunter, *Chairman*; Dr. Tomas Cajigas, *Vice Chairman*; Dr. Lester Neuman, *Secretary-Treasurer*.

Dr. Oscar B. Hunter was named Local Counsel for the American Society of Clinical Pathology.

The American Red Cross, which has been given entire responsibility for the recruitment of nurses for both the Army and Navy, reports that the military services need nurses at the rate of 36,000 annually. The Red Cross is trying to secure more active enrollment from the private duty group, which has contributed only 21 per cent of the nurses up to the present time, as compared with 68 per cent from the institutional group, 6 per cent from Public Health, 4 per cent from a miscellaneous group, and 1 per cent from the industrial field. Comparative tables on distribution of nurses in major civilian fields for 1941 and 1943 show that private duty nurses make up the largest percentage, 60 per cent in 1941 and 62 per cent in 1943. The institutional group is second, 47 per cent in 1941 and 44 per cent in 1943. These figures, taken from a recent survey conducted by the United States Public Health

Service, indicate that the private duty group has not contributed its proportion of nurses to the armed services.

The Red Cross makes its appeal to physicians to remedy this situation by educating the patient and his immediate family to the necessity of dismissing private nurses as soon as the stage of convalescence has been reached. They also ask the physician to encourage private duty nurses to enroll for military duty. Doctors, by giving their advice and counsel, can help nurses to make their decisions.

Plans for the **United States Cadet Nurse Corps** were announced by Surgeon General Thomas Parran at a meeting in the Medical Society's building, August 3. Present at the meeting were directors of nursing schools, superintendents and officers of nursing organizations from the District, Maryland, Virginia, West Virginia and North Carolina. Mr. O. K. Fike, President of the Maryland and D. C. Hospital Association, presided at the meeting. Assisting Dr. Parran in the discussion of plans was Miss Lucile Petry, Director of the Division of Nursing Education in the U. S. Public Health Service.

Funds for the new Corps will be furnished by the Federal Security Agency in accord with the Bolton Act which was passed by Congress in June. It will be administered by the United States Public Health Service.

Providence and Freedmen's Hospitals in Washington and Johns Hopkins Hospital in Baltimore are the first institutions to participate in the plan. Federal funds will be available to the schools of nursing which participate in the program, and the schools in turn will furnish scholarships, fees, books, maintenance, uniforms and monthly allowances. The schools will accelerate their programs, reducing the time required for training from 36 months to 30 or 24 months.

Senior cadets (student nurses in the last period of training) will serve as nurse interns, thus relieving the current shortage of trained nurses in hospitals. Graduates of the corps will continue in nursing for the duration, making their own choice of military or some branch of civilian nursing. It is hoped that 65,000 new students will enroll this year. Student nurses now enrolled in schools taking part in the program may also join the Corps.

Information regarding the new Corps is available at the D. C. Council for War Service at 1746 K Street, N.W., telephone National 2149.

Junior Medical Officers are needed at **St. Elizabeths Hospital.** Applicants must be fourth year students in Class A medical schools or they must have successfully completed their fourth year of study in a Class A medical school subsequent to December 31, 1935. The duties of Junior Medical Officer (Rotating Internship) are those of an intern assigned to medical, surgical and laboratory services, and out-patient clinics. A postgraduate internship of one year in psychiatry is offered to graduates of medicine who have already served an accredited rotating internship.

Women may be utilized in these positions. The salary is $2,000 a year plus overtime pay. There are no age limits, and no written tests are required. Application forms may be obtained at first or second class post offices, Civil Service Regional Offices, and the Civil Service Commission.

Georgetown University Hospital will receive the bulk of the estate of the late Dr. Sophie A. Nordhoff-Jung, who died June 6, 1943. Her will provides that $35,000 be given to the Hospital now for maintenance of a convalescent ward, to be named as a memorial to Dr. Nordhoff-Jung and to her husband, the late Dr. Franz A. R. Jung. This sum is in addition to $15,000 previously donated. Upon the fulfillment of other bequests for which the will provides, the remainder of an estate of more than $250,000 will go to Georgetown Hospital.

Dr. A. R. Abarbanel was awarded the Foundation Prize of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons for 1943. His thesis was entitled "The Spasmolysant Action of Magnesium upon the Tetanically Contracted Human Uterus." Dr. Abarbanel is a Teaching Fellow in Obstetrics and Gynecology at the George Washington University School of Medicine.

Mr. John A. Lindner has succeeded **Mr. O. K. Fike** as Director of **Doctors Hospital,** beginning his new duties September 1.

Mr. Lindner comes to Washington from Perth Amboy. New Jersey, where he was Administrator of the General Hospital. He is a native of Carlisle, Pa., and a graduate of the Virginia Military Institute. During the last war he served as an officer in the 28th Division.

Mr. Fike has held the position of Director of Doctors Hospital since June 1940. He will leave Washington soon for Dayton, Ohio, where he has accepted the position of Director of the Miami Valley Hospital. This institution is now housed in an old building, but plans are under way for constructing a new $3,000,000 hospital which will have 600 beds.

CHARLES S. BAKER, LL. B.
(1888–1943)

The death of Charles S. Baker, Counsel for the Medical Society of the District of Columbia, on August 2, 1943, came as a shock to his many friends in the medical profession. Mr. Baker, known as "Si" to his intimate friends, had been ill for several months.

Mr. Baker, a native of Columbia, South Dakota, had been a resident of Washington for over a quarter of a century. He received his B.A. degree from Cornell University and an M.A. degree from Columbia University. He studied law at George Washington University and in 1913 received his LL.B. degree.

During the World War he enlisted in the Navy as a seaman, 2nd class. He later became a lieutenant in the aviation branch and was promoted to lieutenant commander.

He was a member of the Board of Trade, the University, Chevy Chase and Metropolitan Clubs, Delta Kappa Epsilon Fraternity, Temple-Noyes Lodge, F.A.A.M. and the American Legion.

Mr. Baker was a member of the District Bar Association and the American Bar Association, and was a Director in the Federal Storage Company and the National Savings and Trust Company. He had also served as President of the George Washington University Alumni Association and was a trustee of the school. He attended the New York Avenue Presbyterian Church.

Besides his widow, Mrs. Elizabeth Baker, he is survived by a daughter, Miss Barbara Baker, and two sons, Charles Lambert Baker and Harold Brooks Baker, of this city. He made his home here at 4959 Hillbrook Lane, N.W., and maintained a summer home at Chaumont, N. Y.

Charles S. Baker, LL. B.

Those who knew Mr. Baker personally and counted him as a friend were indeed fortunate. He was loyal, thoughtful of others and was anxious to do whatever he could for those in difficulty. The Society had in him a capable legal representative, willing at all times to give up whatever business was at hand to attend to Society matters.

In recognition of his loyal and faithful service, the Medical Society of the District of Columbia, on April 30, 1941, elected him an Honorary Member. No one could have been more deserving of this recognition.

If men are remembered because of their good works, Mr. Baker will live long in the memory of his many friends in Washington.

Funeral services for Mr. Baker were held in the Rock Creek Chapel, followed by burial in Rock Creek Cemetery.

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odor was the real cause of their feeling that people were against them.

As soon as they thoroughly understood this substitution mechanism and made a frank mental adjustment, they recovered from their severe anxiety hysteria.

CONCLUSIONS

1. Unless insight is developed and proper adjustment made in this type of case, a disintegration of the personality and psychosis will result.
2. In the analysis of a case of paranoid dementia precox, or paraphrenia, the above mechanisms will usually be found, showing that this type of psychosis is always on a homosexual basis. Further proof of this fact will be found in the content of their hallucinations and delusions.
3. It is all-important that the above complexes be recognized early and proper treatment given. When the psychosis is once established, the development of insight is more difficult, if not impossible, and psychotherapeutic measures are often useless.

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together the very poor and the very rich. The middle class is the liaison.

"One of the strong reasons why I believe we cannot greatly increase individual rates in 1943 is that under law, income tax rates must be uniform. Since we have this principle, any drastic increase would be overwhelming for those taxpayers with low or moderate fixed incomes, such as wages, salaries, self-owned business, annuities and the like.

"Any large increase must fall on the middle income brackets and down to $2500 and $3000. The truth is that of our national income (now at 140 billions) some 91 billions goes to people in the lower brackets—people whose income is $3000 or less.

"When we realize that taxes must be uniform, it is clear that further drastic increase would be back-breaking and destructive to the middle class and to the lower-upper class."

Doctors, of course, come in what Senator George refers to as the "middle class . . . to the lower-upper class." The Senator believes that some five or six billions can be raised without destroying these taxpayers financially.

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technic is installed, the men of special competence and of years beyond those of the recent graduate have the assurance of careful consideration and a commission more nearly in accord with age and experience.

The call here made has the approval of the Directing Board of the Procurement and Assignment Service and of the War Participation Committee of the American Medical Association. The medical profession may well be proud of the fact that it has been the only group given, by directive of the President, the responsibility of maintaining service in civilian life and at the same time supplying the needs of the armed forces. Let us not fail in meeting fully the trust that has been placed upon us. (J.A.M.A., 1943, **122**, 1016.)

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ELECTROCARDIOGRAPHIC CHANGES FOLLOWING METRAZOL CONVULSIONS

Effect of Prolonged Anoxemia

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SINCE von Meduna[1] first introduced metrazol shock for the therapy of schizophrenia in 1935, this method has been used with increasing frequency in the therapy of all types of psychoses. The occurrence of various disturbances in cardiac rhythm has been noted by a number of independent investigators, and several hypotheses have been advanced to explain these occurrences. The purpose of this paper is to present 7 additional cases in which the introduction of controlled anoxemia following metrazol convulsion seems to throw additional light on the mechanisms by which these irregularities occur.

Hadorn[2] (1937) made electrocardiographic studies on patients receiving metrazol shock therapy and noted sinus arrhythmia and a tendency toward extrasystoles and auricular fibrillation, and stated that changes in the S-T segment and the T waves were absent.

McAdam[3] in 1938 described the occurrence of auricular fibrillation in 2 of 16 patients treated shortly after shock therapy was instituted, which cleared up rapidly. However, these observations were not supported by electrocardiographic evidence.

Messinger and Moros[4] described their electrocardiograms taken as shortly after the occurrence of metrazol convulsions as was practicable. They made the following observations: "The changes in rate were usually minor in degree. . . . In only 2 of 10 instances did an acceleration of the pulse of 32–42 beats per minute occur. The rhythm generally remained grossly regular after the fit; in 1 instance a slight sinus arrhythmia was noted; in 2 cases occasional auricular extrasystoles appeared, and in 1 case rare ventricular extrasystoles were seen. There were no significant changes noted in the amplitude of the P, Q, R or S waves in any lead except such slight increase in amplitude of the QRS complexes in 2 instances as might indicate a rather more vigorous ventricular action. In no instance was there noted any significant deflection of the S-T interval. The T waves either showed no increase, or slight increase in amplitude ranging from 0.5 to 2 millimeters. This increase was generally in the direction of normality and was particularly evident in lead IV."

The only exceptions to this rule regarding the T wave changes were that in 3 cases they found T waves after the fit which were slightly diminished in amplitude (0.5 mm.) and were considered less normal than before. The 3 cases in which these grams were taken were stated to be outstanding examples of those showing a special susceptibility to adrenalin or adrenalinmimetic sympathetic activity.

These studies were made on 8 patients in 10 instances, in 9 of which the desired result of a grand mal convulsion was achieved. The dosage of metrazol, administered intravenously, varied from 4.0 c.c. to 12.6 c.c. with an average dosage of 7.4 c.c.

On the other hand Levine, Piltz and Reznikoff,[5] in an analysis of the electrocardiographic findings in 50 schizophrenia patients with convulsive shock introduced by metrazol, state that "an increase in the heart rate is frequently observed following therapy. This we believe is due to emotional factors rather than to the injection of metrazol per se. Shortening of the S-T and less commonly of the P-R intervals was also commonly observed. This, in our opinion, is associated with the increased rate.

"Inversion of the T waves in leads II and III, following therapy, occurs in isolated instances. These changes are transient in nature. The mechanism of the changes is somewhat obscure although they are possibly correlated with anoxemia."

In this paper the authors do not state the elapsed time following the convulsion before the taking of a second electrocardiogram. (All patients had electrocardiograms before starting treatment.) By implication these tracings were taken after the completion of a course of therapy, prior to discharge. The 2 cases in which inversion of the T waves in leads II and III were described are given in somewhat more detail. In the first, the last convulsion was separated by an interval of 6 days from the taking of the electrocardiogram which revealed the abnormality. This is described as "inversion of T_2 and T_3 with inversion of S-T. The T waves were of a cove plane type and suggested coronary changes." Twenty-seven days later a similar record was obtained, but 5 days later, a total of 38 days following the last convulsion, a normal tracing was again obtained.

In the second case the tracing revealing the T wave changes was made 2 days following the last convulsion. "Inverted T_2 and T_3 were again considered suggestive of coronary disease. It was suggested that anoxemia might account for these changes. Acting on this suggestion the patient was given 100 per cent oxygen by inhalation (with a Gwathemy anesthesia machine) for 15 minutes. Thirty minutes later an electrocardiogram was taken and revealed that most of the T waves in leads II and III were upright." Twenty-one days later another tracing showed the T waves still upright and the electrocardiogram normal in appearance.

Sonenthal and Low[6] studied 39 patients with electrocardiograms following insulin and metrazol therapy. Of these, 3 had tracings taken within 5 to 10 minutes following the intravenous injection of metrazol. The first patient did not react with a convulsion. The heart rate rose from 112 to 135 per minute. The patient's intense fear of the injection was given as the probable reason for the high initial rate. In general the difference between the initial tracing and that taken after the injection was negligible. In the second patient the convulsion occurred 10 seconds after the initial injection. The heart rate rose from 66 per minute to 140 per minute. The only other change was an increase in the height of the P waves in all leads. The third patient also responded with a convulsive seizure. The tracing showed several auricular extrasytoles in lead I, the T waves were higher in all 3 leads and there was sinus arrhythmia. In all 3 patients the follow-up showed no significant electrocardiographic changes.

Good[7] describes anomalous cardiac occurrences in a series of 75 cases which underwent treatment with cardiazol (metrazol) for various types of mental illness. In his investigation attention was directed chiefly toward electrocardiographic records.

To determine whether the abnormalities encountered were due to metrazol per se, or to other factors, the cases were divided into 2 groups: (1) those treated with subconvulsive doses and (2) those treated with convulsive doses.

With 1 exception, all the abnormalities encountered in this series occurred within 5 minutes of the termination of the convulsion, during the so-called "limp" period which immediately follows termination of the convulsion, and less so in the period of stertorous breathing with return to consciousness which follows the "limp" phase; or in the case of subconvulsive doses, within 5 minutes of administration.

He divided the abnormalities into 4 groups: (1) fixed disturbances of rate including tachycardia and bradycardia, (2) irregularities, (3) mixed types, and (4) others, a heterogeneous group.

Tachycardia (over 150 per minute) was found to appear at varying times, immediately after the convulsion, or following gradually from normal rate. The reversion to normal was usually abrupt.

Rate of the bradycardias was found to vary within wide limits (25 to 50 per minute). Its onset was usually gradual and its return to normal equally so. It was usually of the sinus type.

Sinus irregularities both of slow and fast rate were noted, with the fast types predominating. There were variations in the amplitude of the R deflections and the occurrences of waves toward the end of the record similar to those obtained in cases of auricular fibrillation, but possibly due to somatic tremor. Clinically the fast irregularly irregular rate is indistinguishable from cases of auricular fibrillation. Coupling of beats was noted in another record, the second of each of the coupled beats being a ventricular extrasystole. Auricular fibrillation was also seen in this patient. Ventricular extrasystoles and bradycardia of 40 per minute were noted in another patient, and nodal rhythm was commonly met.

In the mixed type, sudden conversion of moderate bradycardia to moderate tachycardia was noted.

The heterogeneous group included such phenomena as changes in the shape and disposition of the deflections, delay in the conduction of the T wave, splintering of the R wave (both up and down stroke), and change of ventricular preponderance.

The duration of the cardiac abnormalities described did not exceed 5 minutes, except in 1 case in which status epilepticus occurred.

Kline, Fetterman and Williams[8] took electrocardiograms on 37 patients before and after 43 convulsive doses and 9 subconvulsive doses of metrazol. The 3 standard leads were taken just preceding the injection of the drug, then lead II was recorded immediately on the cessation of the convulsion, and at 3,5 and 10 minutes after the injection. Gross cardiac arrhythmia was distinguished immediately after all but 8 of the 43 convulsions. The disturbances were of 3 types, those characterized by changes in the heart rate and changes in the auricular pacemaker, those resulting from variations in A-V conduction, and those caused by extrasystoles of various types.

The type and frequency of arrhythmias observed in the 35 cases were: sinus arrhythmia in 4, shifting pacemaker in 15, atrioventricular rhythm in 10, prolonged P-R interval in 3, partial heart block in 2, complete A-V dissociation with interference in 2, auricular extrasystoles (including 1 case of bigeminy) in 19, auricular extrasystoles (blocked) in 1, atrioventricular extrasystoles in 4 and ventricular extrasystoles (including 1 case of bigeminy) in 4.

Changes in the T waves were noted by them following 33 of the 43 convulsions. This change was almost always most pronounced in the record which was taken in the period immediately following the convulsion; in every instance the T wave had returned to its original amplitude by the end of the 10-minute period of observation. Although the increase in the height of the T wave was usually no more than 1 to 2 per minute, it was occasionally much greater.

Nine satisfactory records following the administration of subconvulsive doses of metrazol were obtained. In 2 of these cases conspicuous alterations in the cardiac rhythm were noted. In 1 case atrioventricular and sinus rhythm alternated and in the other sinus bradycardia with a rate of 53 resulted.

PRESENT STUDY

Seven records on 6 different subjects are presented here because of the profound changes noted and because the method by which these changes were obtained seems to throw more light on the mechanism of electrocardiographic alteration following metrazol convulsive therapy.

All subjects who were studied had had previous physical examinations, with particular reference to the cardiovascular system, and all had standard 3-lead electrocardiograms taken. There were 5 males and 1 female. Their ages were 34, 46, 43, 23, 27 and 68 respectively. There were 3 cases of dementia praecox, 1 of manic-depressive psychosis, 1 of agitated depression and 1 of involutional depression in the group. As far as could be determined, no active organic disease was present.

Working on the theory that cerebral anoxemia following metrazol convulsions might be the major therapeutic factor in metrazol therapy, it was decided that this period of anoxemia which follows the convulsions might be increased with beneficial effects. Accordingly the following routine was observed. A control electrocardiogram was taken preceding therapy. The electrodes were left in position and the dosage of metrazol was rapidly administered intravenously, using a no. 19-gauge needle. As far as possible tracings were taken during the latent period preceding the convulsion, but following the injection. The electrocardiogram was shut off when the convulsion commenced, the electrodes being left in place. As soon as the clonic phase of the convulsion was terminated, during the so-called "limp phase," the tracing was again commenced and continued uninterruptedly.

Normally the "limp phase" is terminated by several deep, sighing respirations. At this point in the procedure the mouth and nose were firmly grasped by the operator or assistant, thus preventing the entrance of oxygen into the lungs or the exhalation of carbon dioxide. The apex and pulse rate were carefully observed, as was the electrocardiographic string shadow and the general condition of the patient, and this period of enforced anoxia was maintained as long as it was deemed safe, the length of time varying with each individual. Following the termination of the anoxemia the electrocardiographic tracing was continued, if possible, until all significant variations in rhythm had disappeared and gross alterations in the excursions of the string could not be noted. If the rate was also normal at this time the tracing was discontinued; if the rate was significantly abnormal, tracings were taken at 2- to 3-minute intervals. In several cases movement by the patient interfered with this routine. Lead II was utilized throughout the tracing, since it was thought that a single lead would offer a better basis for comparative evaluation, as well as allowing the observation of an uninterrupted sequence of events.

REPORT OF CASES

Case 1.—N. E., a Jewish male 34 years of age, had had dementia praecox for 4 years. A standard 3-lead electrocardiogram was normal on several occasions preceding the convulsive therapy. This was the fourth metrazol injection. Marked cardiac irregularity had been noted clinically on each of the 3 preceding injections. Ten c.c. of metrazol was administered intravenously. There was a latent period of 22 seconds preceding the convulsion, during which the heart rate was 100 per minute. The duration of the convulsion was 48 seconds, a typical grand mal seizure, and following the termination of the convulsion an additional period of 52 seconds of enforced apnea was obtained. Legible tracings were secured 66 seconds after the onset of the convulsion (18 seconds after the termination of the convulsion) during the "limp period" and the period of enforced apnea. The initial rate was 100 per minute, and the T wave, which had measured 4 mm. in the control, was 4.5 mm. The rate fell steadily, reaching 55 per minute at 96 seconds, with the T wave increased in height to 5.5 mm. At 100 seconds a period of complete asystole of 5 seconds' duration was noted, coming on very abruptly from the rate of 55. The apnea was terminated at this time, and the patient drew a spontaneous deep respiration within the next 5 seconds. At 106 seconds the heart again commenced to beat. There was an idioventricular rhythm with no P deflections apparent. The rate was 36 (fig. 1). The T waves appeared coved and still measured 5.5 mm. At 112 seconds the T waves had further increased in height to a maximum of 8.5 to 9.0 mm.; the P waves had reappeared, and the rate had increased to 60. The P-R interval was 0.08 second (nodal rhythm). The QRS complex showed decreased amplitude. From this point the rate gradually increased and the T waves decreased in amplitude, measuring only 5 mm. at 136 seconds. Marked sinus arrhythmia had appeared, and there were frequent extrasystoles of ventricular origin, which were soon joined by auricular extrasystoles as well. At 156 seconds there were bursts of auricular tachycardia, approximating rates of 160 per minute, and temporary aberrations of intraventricular conduction time were noted, with a series of 4 apparently normally initiated beats showing a QRS duration of 0.13 second. From this point the rate gradually became stabilized at 100 to 120, with occasional ventricular extrasystoles and varying degrees of sinus arrhythmia but no other dramatic changes. The tracing was discontinued at 518 seconds because of extreme restlessness of the subject.

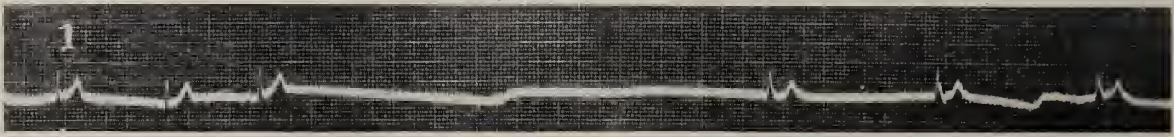
Case 2.—C. M., a white male 46 years of age, had manic-depressive psychosis. Physical examination and standard 3-lead electrocardiograms were normal, except that the latter showed a slight degree of left axis shift. There had been no previous metrazol injections. An initial dose of 6 c.c. of metrazol failed to produce a convulsion, and after an interval of 1 minute 7 c.c. again failed to produce a convulsion. A third injection, this time of 8 c.c., resulted in a typical grand mal seizure. No significant changes were noted in the electrocardiogram during the period following the subconvulsive doses except for a slight increase in rate. However, the tracings were blurred and difficult to interpret as to the form of the complexes, due to somatic tremor, since the patient became markedly apprehensive.

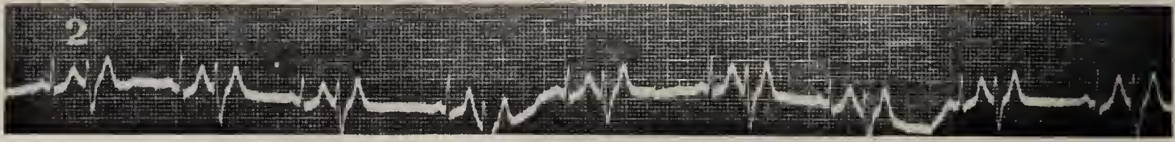
The latent period following the third, 8 c.c., injection, was 15 seconds, the convulsive seizure was 58 seconds in duration, and the induced apnea was 62 seconds in duration, a total apneic period of 120 seconds.

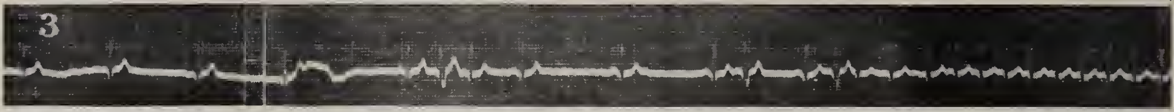
The initial tracing was commenced at 106 seconds with marked sinus arrhythmia noted from the onset, and a rate of approximately 55 per minute. The height of the QRS complex was markedly diminished. At 124 seconds bigeminal rhythm was noted, each normally initiated complex being followed by a ventricular extrasystole and a compensatory pause (fig. 2). This rhythm continued to 178 seconds, with the rate at the apex approximating 70 per minute. At this point a burst of 5 ventricular extrasystoles occurred within a period of 1½ seconds, then 2 couplets and a normal beat occurred, followed by a second burst of 5 ventricular extrasystoles. This activity terminated with a normal contraction, following which, at 184 seconds, bigeminal rhythm again appeared to alternate with a trigeminal rhythm (1 normal impulse and 2 ventricular extrasystoles) to 198 seconds. Bigeminal rhythm again appeared at this point, and continued to 238 seconds, the rate varying from 90 to 110 per minute. Here there was an abrupt resumption of normal rhythm at a rate of 70 per minute. The T waves were high, varying from 8.0 to 12.5 mm. in height as compared to 5.0 mm. in the control, and they appeared somewhat coved. At 260 seconds interpolated extrasystoles were noted which were not immediately preceded by a normal contraction. At 266 seconds bigeminal rhythm occurred for 2 couplets. The remainder of the tracing, to 340 seconds, showed occasional coupling and a moderate number of ventricular extrasystoles. The T waves were somewhat decreased but were still greater than those of the control, approximating 6 mm.

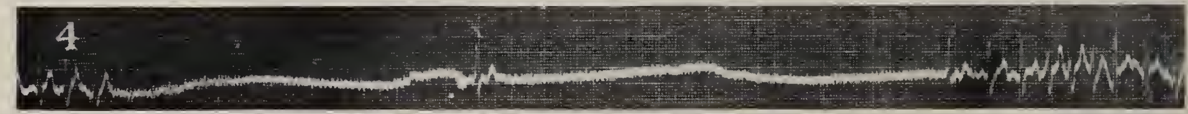
Case 3.—A white female, 43 years of age, with an agitated depression, had had 1 previous metrazol injection with a grand mal convulsion on the preceding day. Six c.c. of metrazol given intravenously resulted in a grand mal seizure lasting 58 seconds, following a latent period of 12 seconds. The tracing was started 6 seconds after the termination of the convulsion, at 64 seconds. The total period of apnea was 188 seconds.

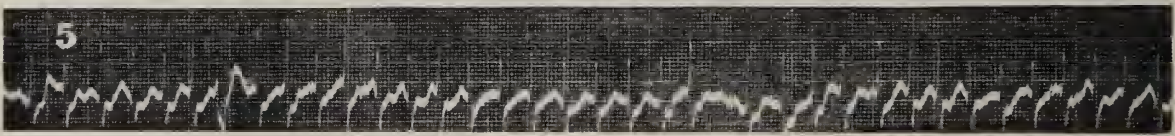
Immediately after the convulsion a rapid regular rhythm was noted, at 140 per minute. Six seconds later this rhythm slowed to 100 per minute and was markedly irregular, clinically simulating auricular fibrillation, but as P waves were visible in the majority of the complexes, and were felt to be buried in slight persistent somatic tremor in the others, this was thought to represent only a marked sinus arrhythmia. This persisted for about 12 seconds. The T waves were unchanged in contour or in height (3 mm. in the control). From this point there was a steady decrease in the rate of the heart until at 140 seconds the rate was 30 per minute. Nodal rhythm developed here; but throughout the duration of the bradycardia the P waves could be seen, more or less buried in the first portion of the T waves. The P-R interval was 0.10 second as compared with a P-R of 0.12 second in the control. A slight increase in the height of the T waves to 4 mm. was noted at 142 seconds, at which point the P waves disappeared. Bradycardia at the rate of 30 per minute was maintained until 6 seconds after the apnea was discontinued at 190 seconds. Immediately following the termination of the apnea (within 6 seconds) the rate picked up to 50 per minute. One P wave apparently initiated a normal contraction at this time, and was immediately followed by 2 blocked P waves, then normal sinus rhythm recurred, with a rate of 80 per minute reëstablished within 12 seconds of the termination of the apnea. From this point on to the end of the tracing at 354 seconds, sinus arrhythmia of a fairly marked degree was present, with an occasional ventricular and 1 auricular extrasystole.











Figs. 1–5 (numbered from above downward)

Fig. 1. Case 1. Complete asystole followed by idioventricular rhythm at a rate of 36 per minute.

Fig. 2. Case 2. Bigeminal rhythm.

Fig. 3. Case 4. Transition from sinus bradycardia to auricular fibrillation.

Fig. 4. Case 5. Cardiac arrest followed by ventricular fibrillation.

Fig. 5. Case 5. Tachycardia with depression of S-T segments and coving of T waves.

Case 4.—A white male, 23 years of age, had dementia praecox, hebephrenic type. A control electrocardiogram showed slight left axis shift but was otherwise normal. The rate was 90 per minute, the T waves were 2.5 mm., and the QRS complexes were 10.0 mm. Six c.c. of metrazol was administered intravenously but failed to produce a convulsion. A tracing taken during this period revealed the rate to have increased to 125 per minute, with perfectly regular rhythm. There were several abnormal appearing complexes, thought to be ventricular extrasystoles, but owing to the marked tremor due to the tremendous agitation of the patient following failure of the dose to produce a convulsion, accurate interpretation was impossible.

One minute and 40 seconds later 8 c.c. of metrazol and 0.5 c.c. of 1:1,000 epinephrin solution were given rapidly intravenously; a grand mal seizure occurred after a latent period of 12 seconds. The convulsion was 25 seconds in duration, and the total apnea including the convulsive period was 85 seconds. The tracing was recommenced 6 seconds after the convulsion had ceased, at 31 seconds. At this time the rate was 110 per minute with marked sinus arrhythmia. There was a steady decrease in the rate to 50 per minute at 85 seconds. This was a sinus bradycardia; there was no change in the P-R interval. At this point the T wave was increased in height to 4 millimeters and the QRS was unchanged. One ventricular extrasystole was noted during this period. The apnea was discontinued at 85 seconds, and within 6 seconds the rate rose to 70 per minute (at 91 seconds) and there was 1 ventricular extrasystole. At 97 seconds the rate was 100 per minute, when auricular fibrillation at a rate of 150 per minute set in, persisting to 378 seconds (fig. 3). Here sinus tachycardia replaced it and continued through the end of the tracing at 400 seconds.

Case 5.—T. K. N., a white male 27 years of age, had simple schizophrenia. One previous injection of metrazol had been given on the preceding day with satisfactory grand mal response. A previous electrocardiogram was normal. The T waves measured 5 millimeters. Six c.c. of metrazol was given intravenously. The latent period of 13 seconds was followed by a grand mal convulsion lasting 60 seconds. Additional apnea of 120 seconds was secured, with a total apneic period of 180 seconds. The tracing was started during the apneic period 36 seconds after the convulsion terminated. The rate at this time (96 seconds) was 90 per minute, and there were numerous ventricular extrasystoles. These continued about 171 seconds with the rate gradually increasing to 120 per minute. The T waves at this time measured 5.5 millimeters. At 180 seconds there was a sudden cardiac arrest, and during a period of 12 seconds only 1 contraction of the heart was recorded, an idioventricular contraction not preceded by a P wave, and of a fairly normal contour (fig. 4). Apnea was discontinued at the first sign of cardiac arrest. The contraction occurred midway in the asystolic period, being preceded and followed by a period of cardiac silence of about 6 seconds' duration. At 195 seconds cardiac activity was resumed with 2 contractions initiated by P waves, followed by a period of 4 seconds of ventricular fibrillation (180 per minute). This abruptly changed at 201 seconds to sinus bradycardia (P-R intervals 0.12 to 0.15 second) and a rate of 40 per minute, which gradually increased again to 60 at 207 seconds and 90 at 213 seconds. At this time the T waves measured 8.0 millimeters and the QRS 33.0 millimeters. At 226 seconds the rate was 120 per minute, and ventricular extrasystoles were seen, otherwise a sinus rhythm was present with occasional completely blocked P waves. The S-T segments were depressed 2 per minute below the base line. The P-R interval was 0.08 second. From this point the rate gradually increased to 160 per minute, the S-T segments gradually dipped until they were depressed 5 millimeters below the base line, and the T waves (at 376 seconds) showed some coving (fig. 5). Occasional ventricular extrasystoles and groups of 2 to 4 completely blocked P waves were noted at intervals to the end of the tracing at 376 seconds. Three days later a standard 3-lead electrocardiogram showed no changes.

Case 6.—A white male 68 years of age had involutional depression. One previous convulsion had been induced. A standard 3-lead electrocardiogram was normal. He was given 6 c.c. of metrazol intravenously; a latent period of 20 seconds was followed by a convulsion lasting 55 seconds, and the total period of apnea was 80 seconds. The electrocardiogram during the first 10 seconds after the convulsion was unreadable; at 65 seconds the rate was 50 per minute. This dropped to 35 per minute (sinus bradycardia) at 80 seconds, at which point the apnea was terminated. This rate was continued to 128 seconds, gradually rising at this time to 55 per minute at 146 seconds, and continuing to rise to 85 per minute at 165 seconds. At this point the patient became so restless that it was necessary to discontinue the tracing.

Four days later studies were again performed on this same patient. An initial dose of 8 c.c. of metrazol produced a grand mal convulsion lasting 55 seconds following a latent period of 22 seconds. The electrocardiogram preceding the tracing was normal, showing the following measurements: P-R interval 0.10 second, QRS complexes 5.5 millimeters, and T waves 2.5 millimeters. The total period of apnea was 100 seconds. The tracing was commenced at 89 seconds, at which time apnea was terminated. There were sinus bradycardia and sinus arrhythmia, and the T wave had increased in height to 5.0 millimeters. The rate continued to slow slightly for 12 seconds following the termination of apnea, to 35 per minute, and then commenced to pick up again. At 118 seconds the T waves were still increased to 5.0 millimeters and a slight transient sagging of the S-T segments was noted for about 10 seconds. One ventricular extrasystole was seen. The rate rose to about 80 per minute and the tracing gradually became normal, the T waves receding and the S-T segments again being level at 208 seconds, at which time the tracing was discontinued.

Discussion

A number of theoretical explanations for the electrocardiographic alterations found following metrazol shock have been suggested. Katzenelbogen[9] in his review of pharmacologic shock therapy stated that considerable emphasis had been placed on the finding of anoxemia in patients undergoing metrazol shock treatment, with anoxemia resulting directly from a depletion of blood oxygen, although he stresses the fact that there is considerable doubt as to whether this factor is responsible for any mental changes observed. He also points out that a considerable degree of anoxemia has been shown to exist during insulin shock therapy.

Kline, Fetterman and Williams[8] state: "The mechanisms responsible for the striking alterations in the rhythm of the heart which we observed are not definitely known. It seems probable that changes in the location of the pacemaker were the result of powerful vagal stimulation induced by the sudden increase in blood pressure, which occurred in most of the cases at approximately the same time, or of direct drug action. The disturbances in A-V conduction may be attributed to the same cause, or to anoxemia secondary to the convulsion. From our records it was not possible to decide which of these factors was the most important, for both increased vagal tone and anoxemia depressed the conductivity of the A-V node." They hoped at the outset of their study that observations of patients receiving subconvulsant doses of metrazol would help them differentiate the direct effects of the drug from the indirect effect of the convulsion. Unfortunately they found that patients were so disturbed by these doses that satisfactory records were difficult to obtain. However, they obtained 9 such records, 7 of which showed no significant variation from the controls, but in 2 of which conspicuous alterations in the cardiac rhythm were noted. (Atrioventricular and sinus rhythm alternated in 1 case, and bradycardia [53 per minute] in the other.) Their conclusion was that the changes in cardiac rhythm probably resulted from increase in vagal tone and other factors including asphyxia.

Rankin Good[7] in discussing his results pointed out several possible mechanisms which probably acted jointly in producing electrocardiographic aberrations. He emphasized that the aura accompanying the administration of metrazol was often terrifying in the extreme. Psychosomatic response to this fear aura might be either one of fright, with the sympathetic system in full control, or the fear which paralyses, in which the parasympathetic nervous system has control, with the production of such phenomena as bradycardia (the heart temporarily "standing still"), diminished respiratory excursion, a desire to defecate, or an involuntary motion of the bowels.

That there is and may be a slowing of the cardiac rate in people who have been frightened, and that people do actually die of fright is well known.[10] He also noted that the somatic tremor attending severe fright makes readable records on the patient receiving subconvulsant doses difficult to obtain, but cited 1 record in which a subconvulsant dose (3 c.c.) of metrazol produced a very marked fear reaction and an intense bradycardia of sinus type, with the rate falling as low as 25 per minute.

In the majority of cases receiving subconvulsant doses no such striking change was recorded, although a number of authors including Good have noted the occurrence of tachycardia following metrazol. Good concluded that the convulsion seemed to be a necessary factor in the production of most of the abnormalities observed.

Abundant evidence of exhaustion following metrazol convulsion therapeutically induced is obvious. The cessation of respiration with increasing anoxemia and cyanosis, the increased cardiac rate during the convulsion, the extreme violence of the muscular movements, which of themselves would produce exhaustion, are common knowledge. Clinical evidence of cardiac exhaustion has included the observation of varying heart murmurs, enlargement of the area of cardiac dullness, reduplication of heart sounds, the sudden appearance of rhonchi and râles following a convulsion, as well as X-ray evidence demonstrating the temporary dilatation of the heart.

In the series of cases presented here striking alterations in the electrocardiographic pattern seemed to be correlated with cessation of the induced anoxemia. In the first case (N. E.)

temporary cardiac standstill, following a steady decrease in rate during the anoxic period, was abolished within 6 seconds of the resumption of respiration, and sinus control was evident within 12 seconds, with rapid increase in rate. Alterations in the configuration of the various complexes lagged considerably behind the rate changes. In case 2 the alteration was not so striking, but in case 3 a steadily developing bradycardia during anoxemia, with the occurrence of idioventricular rhythm, was abolished 6 seconds following the return of respirations, and within 12 seconds a normal sinus rhythm was again in control. In case 4 bradycardia and increasingly high T waves were noted during the anoxic period, with a rapid increase in rate 6 seconds after respiration recurred.

In case 5 sudden cardiac arrest, with 1 contraction during a 12-second period, was noted during the anoxic period. Following the return of respiration the heart again commenced to beat, although there was considerable rapid shifting of the pacemaker apparent during the next 30 seconds. A fairly normal basic rhythm was reëstablished within this time, however. Marked changes in the S-T segments were seen after the abolition of anoxemia.

In case 6 bradycardia developing during the anoxic period persisted for 48 seconds after the return of respirations before an increase was noted. A similar though shorter lag was noted when studies were again repeated on this patient. The rate continued slow for 12 seconds after the termination of apnea and then commenced to increase again, reaching a rate of 80, 24 seconds after the termination of apnea. The lag probably represented various rates of oxygen diffusion through the tissues.

Motta[11] had previously shown on dogs that asphyxiation produced diverse electrocardiographic changes, including bradycardia, extrasystoles, ventricular tachycardia and fibrillation, variable A-V block, bundle branch block and ventricular fibrillation. He also showed that these changes were diminished but not abolished by atropinization and vagal section.

Certain changes in the electrocardiogram have been shown to occur regularly when the patient is subjected to lowered oxygen tension. The work of Greene and Gilbert,[12] in 1921, has become a classic in this regard. Considering the alterations to be divided into 2 periods, the pre-crisis period before the subject lost consciousness and the post-crisis period following loss of consciousness, they found the following: During the pre-crisis stage the electrocardiographic changes were not marked, consisting chiefly in decrease in the amplitude of the T waves and slight shortening of the P-R and R-T intervals, associated with an elevated heart rate. The post-crisis changes included a marked decrease in the heart rate, progressive suppression of the S-A rhythm, A-V nodal rhythm and even idioventricular rhythm. They showed further by means of animal experiments that the early post-crisis changes are due to greatly augmented vagal tone.

Subsequent investigators have tested cardiac patients as well as normal subjects.[13–20] The tests were usually terminated in the pre-crisis stage in order to minimize the discomfort and risk. In general they agree that the significant electrocardiographic alterations are a depression of the S-T segments and a lowering or inversion of the T waves. These changes are usually more pronounced the lower the oxygen tension.

Levine, Piltz and Reznikoff[5] describe 1 case in which inverted T waves, noted for 2 days after metrazol convulsions, were abolished following the administration of 100 per cent oxygen by inhalation.

The similarity of the abnormalities obtained in the present series with those described above are obvious and would seem to justify the conclusion that anoxemia is one of the factors responsible for the electrocardiographic alterations found. The correlation of the rapid rate changes following the cessation of induced anoxemia tends to support this view.

As has been pointed out, however, the occurrence of powerful vagal stimulation is also undoubtedly a factor, particularly in the early disturbances of rate and rhythm. Whether this stimulation is a result of psychosomatic response, blood pressure variation, the effect of anoxemia on the vagus nerve or higher centers, or a combination of these factors, is not possible to state from these observations or the other papers referred to here.

Summary and Conclusions

The literature relating to electrocardiographic alterations following metrazol shock therapy has been briefly reviewed and 7 additional records on 6 subjects have been described.

A new factor of controlled anoxemia following the convulsion is added and correlated with some of the more striking alterations in cardiac rhythm.

Mechanisms responsible for alteration in rhythm, rate, and configuration of electrocardiographic complexes have been discussed and the theories correlated with the findings described here and by others.

Marked changes observed in electrocardiograms following metrazol shock therapy, with or without additional anoxemia, are probably the result of 2 factors acting together: (1) the direct effect of anoxemia on the heart and conduction system, and (2) powerful stimulation of the vagus nerve.

The direct effect of anoxemia is probably responsible for the majority of the changes.

N. B. The author wishes to acknowledge his gratitude to Dr. Walter Freeman, Professor of Neurology, George Washington University School of Medicine, who very kindly permitted him to make these electrocardiographic studies on his patients and also assisted with many valuable hints and suggestions.

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Tuberculosis has retreated and is still retreating before a prolonged and sustained attack upon the pulmonary form of the disease. Fifty years ago a few zealots began to shout in the wilderness that "consumption" could be cured! Gradually they attracted attention, sympathy, support; and at last they were rewarded by the acceptance of their principles as a legitimate part of the order of the day. About them there appeared those little parasitic enterprises that always attach themselves to successful ventures; but the faddists came and went, while the movement stabilized itself and grew. Soon it was found that efforts directed toward the cure of the disease were effective also in preventing it; prevention then became the aim; and now that preventive measures are proving more and more successful, the goal has been shifted to eradication. Today tuberculosis workers are an established group of specialists, already divided into their own sub-specialties; and tuberculosis control, no longer merely a movement, has been integrated into every sound public health program—a recognized public health responsibility of every community. Air-Borne Infection by Dwight O'Hara, M.D., 1943.

COMMON SKIN DISEASES OF CHILDREN SEEN IN PRIVATE PRACTICE*

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THE skin of the young infant is exceedingly tender and delicate, a state which predisposes it to many irritations, excoriations and superimposed infections. Since prevention of these conditions is much easier than cure, proper care of the infant's skin from the moment of birth is of paramount importance.

The first essential is cleanliness, and this must be secured without the use of strongly alkaline soaps or too much friction. Diapers should be removed as soon as soiled or wet, and it is good practice, particularly in the care of young infants, to apply a small amount of oil to the entire diaper area at the time of changing. Many infants require nothing more than careful drying after the bath; others, particularly the very fat infants, benefit by the application of a small amount of oil or lanolin or of some bland absorbent powder in the folds of the skin. If plain water causes too much irritation, and it often does, only oil should be used or salt added to the water.

SKIN INFECTIONS

Impetigo.—One of the first skin conditions which the pediatrician is called upon to treat is impetigo of the newborn. Because of the very delicate and tender skin of the infant, any small abrasion or rash is apt to eventuate in impetigo. The lesions are caused by staphylococci or occasionally streptococci and are characterized by the formation of discrete vesiculopustules occurring most frequently on the hands and face. The lesions spread easily on the patient by auto-inoculation from one part of the body to another.

This is a very contagious disease and spreads rapidly from one infant to another in the nursery so that these infants should promptly be isolated from the others and cared for by separate personnel. Many times the only solution is to evacuate the whole nursery; scrub, clean and paint all of the woodwork; and autoclave all diapers, bands, crib pads and blankets, since the laundry is too unreliable in the average hospital. The doctor, the nurse, the mother of the breastfed infant, and visitors form the four principal sources of exposure and contraction of this condition. These groups should be especially careful, and every effort in the nursery should be directed toward preventing unsterile contact of these individuals with the newborn child.

The earliest lesions are vesicles from pinhead to pea size which rapidly spread and enlarge. They are clear at first, but later the contents become turbid and slightly yellowish. These blisters readily rupture and form crusts which are thick and yellow. The true skin is seldom involved and therefore scarring does not result. Sometimes through scratching or in poorly nourished or cachetic infants ulceration occurs and the lesions leave a scar. These small lesions may enlarge to form bullae one or two inches in diameter, and the disease then is often termed pemphigus neonatorum. The favorite site of the eruption is the face, but it may appear on any part of the body. Itching is never a prominent symptom.

Impetigo, if promptly treated, may clear up in a few days, but often it lasts for weeks and by auto-inoculation may persist even longer.

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* Read before the Society, April 21, 1943.

The diagnosis is seldom difficult if one bears in mind the characteristic lesion with the absence of itching, the absence of surrounding areolae, and the occurrence of several cases together. One must differentiate chicken pox, pustular syphilitic eruption, and epidermolysis bullosa.

The treatment is usually simple and very effective. The crusts should be softened and removed by thoroughly washing with soap and water and all blisters broken and cleansed all the way to their margins with soap and water or 70 per cent alcohol. An antiseptic such as 1 per cent aqueous solution of gentian violet, 3 per cent ammoniated mercury, or 5 per cent sulfathiazole ointment or powdered sulfathiazole crystals is then applied. Thoroughness must be emphasized in the treatment, as well as the importance of auto-inoculation and spread of the disease by the hands of the attendant.

Ring Worm.—Ring worm infection is also frequently seen and usually requires the services of a dermatologist. This is particularly true of ring worm of the scalp, and I believe that most patients, and pediatricians as well, would be better off if all patients with ring worm were referred to a dermatologist for X-ray therapy. Local application of Whitfield's ointment is usually safe, but in the end small doses of X-rays are frequently indicated. The hypochlorite foot bath used prophylactically around swimming pools and gymnasiums is believed to be quite effective in controlling ring worm of the feet or "athlete's foot."

Furunculosis.—Pyogenic infections of the skin are exceedingly common in infants, especially the debilitated. These may be anything from a minute hair follicle infection to large furuncles. The staphylococcus is the usual offender, although the streptococcus may be causative. Boil after boil may appear, and the disease may be very difficult to eradicate.

The treatment should be directed toward improving the general nutrition. Large doses of vitamin B complex, dried brewer's yeast, or the ordinary yeast cake are sometimes very effective. Local treatment should be directed toward cleanliness of the skin. Alcohol is best for this purpose, and the affected parts should be frequently bathed with it. Adhesive should not be used, since it lowers the resistance of the surrounding skin. Incision should not be made except when the boil has pointed and then only a small opening made. Wet dressings aid in localization before opening and later aid in drainage. In severe cases staphylococcal antitoxin should be used and sulfathiazole given internally. Autogenous vaccines are usually very effective in effecting a permanent cure. The general hygienic treatment should be continued for months.

Scabies.—Scabies is seen from time to time in private practice and all that is required for cure is the time-honored sulfur ointment, but it should be remembered that the U. S. P. strength is too irritating for small children, and it is advisable to use one third the usual U. S. P. strength. It should be further remembered that the results are apt to be discouraging unless other members of the family are investigated and treated if infected.

SKIN IRRITATIONS

Intertrigo (*ammoniacal dermatitis or diaper rash*).—The term intertrigo is rather loosely used for any eruption which develops upon two moist surfaces which are in contact. There may be simply an erythema or a frank dermatitis. It is seen in the folds of the groin, between the scrotum and the thighs, between the buttocks, about the anus, in the axillae, on the neck, or behind the ears. Its essential causes are moisture, friction, want of cleanliness, and sometimes infection. There is an intense uniform redness, and in some cases the epidermis is denuded over large areas, and the surface is moist. There is no thick crusting and no itching. It is common in very fat infants.

The disease is seen in its worst form in the diaper area and is the familiar diaper rash or ammoniacal dermatitis. The whole diaper area frequently is the site of a very intense inflammation, and in long-standing cases the outer skin may be denuded and ulcerated. In boy babies the urethral meatus is involved, and an annular ulceration is present. Under these circumstances there is dysuria, flecks of blood may be seen on the diaper, and red cells and leukocytes appear in the urine.

In certain cases this irritation may be set up by the use of an excessively alkaline laundry soap with inadequate rinsing of the diapers. In the majority, however, it is due to bacterial decomposition of the urine with the production of ammonia from urea and occurs after the urine is passed in the diaper. Formerly it was believed that ammonia in the diaper was caused from insufficient drinking of water, acid in the body, etc., and was treated by giving alkalis and trying to force the infant to take more water. This practice is to be discouraged and one should treat the source of the ammonia which really is an infection in the diaper.

Intertrigo is seldom difficult to control. Outside the diaper area frequent applications of a dusting powder and keeping the surfaces clean and dry is all that is required. In the diaper area it is a different story. This condition often alarms the mother very much. She will call frantically on the telephone and say she has found blood on the diaper of her boy baby, or he urinated blood, or he can't urinate, or he screams when he starts to urinate. Of course, there are other things which can cause these symptoms and signs, but our first question should be, "Do you smell ammonia in the diaper?" Her reply will usually be, "Why, you can hardly go near his room in the morning, the ammonia is so strong." Then assurance can be given the mother that it is nothing serious, and the condition can readily be controlled by using a simple technic in laundering the diapers. She should understand that ammonia is a free gas and will burn or irritate anything which it touches if not diluted with sufficient air. Certainly the baby will cry when he urinates because it hurts, or he will refuse to urinate because it hurts and blood will be on the diaper because the ammonia has given him an ulcer at the meatus. If the ulcer is of long standing, a crust will cover the meatus and cause him to exert a great deal of force to eject his urine around the crust or to force it loose.

The first step in the treatment of ulcer of the meatus is to gently remove the crust and cauterize the margins of the ulcer with 5 per cent silver nitrate solution. This crust will return, however, and the ulcer will remain unless the ammonia in the diaper is controlled. The mother is advised to expose the inflamed area to the air as much as possible, place the diaper beneath him instead of pinning it on him and by all means to do away with rubber pants or any of the newer substitutes for rubber pants which shut out the air. Exposure of the buttocks to a sun lamp or natural sunlight is helpful in obstinate cases. At night when the diaper is apt to remain in place longer after being soiled than during the day, in our experience Lassar's zinc paste applied to the inflamed area, thus giving a mechanical protection to the skin from contact with the urine, affords remarkable relief. It is much more efficacious than zinc oxide ointment because it is not so readily rubbed off. She is then given the following technic for doing the diapers, and this applies to shirts, training pants and pajamas in older children or any article of clothing which gets soaked with urine:

1. Use a mild soap in washing diapers.
2. Rinse three times to remove all soap.
3. Soak over night or at least 2 hours in a boric acid solution, using 3 tablespoonfuls of boric acid powder in 1 gallon of water.
4. Wring them lightly and hang in the sun to dry if possible.

Bacterial decomposition is much more apt to occur in the diapers in damp weather or during the winter months when clothing has to be dried inside after laundering. Bichloride of mercury solution 1:5000 may be used for the final rinse instead of boric acid solution; but perhaps there is some hazard in having this mercury bichloride about the home, because it comes in beautiful big green pills which might be tempting to a child of the toddling age if he should discover them. If the diapers are wrung lightly when taken out of the boric acid solution, enough of the chemical remains in the diaper to limit the bacterial decomposition and subsequent ammonia formation.

Miliaria (*prickly heat*).—Another common irritation of the skin is miliaria or prickly heat. This condition is common in warm weather and is caused by an inflammation about the sweat glands. Sometimes the ducts of these glands are closed and tiny vesicles appear on top of the red papules. When this occurs there is usually itching. The scratching may result in secondary infection, frequently impetigo. Prickly heat is to be treated by lighter clothing, frequent bathing and either a dry dusting powder or calamine lotion if there is much itching.

Seborrhea (*milk crust*).—A very common condition seen in many infants is seborrhea of the scalp or the so-called "milk crust" or "cradle cap." This is often of great concern to the mother but really is a simple thing and is usually easily handled. It is characterized by the formation of dirty-yellow crusts on the scalp which are soft, greasy and friable.

Only local treatment is required. The crusts are first to be softened with oil and then removed by thoroughly washing with warm water and soap, after which an ointment of resorcin, 2 per cent, or of sulfur, 10 per cent, should be applied. The oil and soap and water are repeated every few days or as often as the crusts form. In the meantime the scalp is kept covered with the ointment.

Dermatitis Venenata (*poison ivy*).—Dermatitis venenata is a term which includes lesions of the skin produced from contact with a variety of oleoresins which in the eastern part of the United States is almost always due to Rhus toxicodendron or poison ivy and in the western states Rhus diversiloba or poison oak. My remarks, therefore, will be limited to the lesions caused by poison ivy.

About 70 per cent of white people are susceptible to poison ivy, and all degrees of susceptibility are seen. Some individuals require intimate contact with the plant, while others are so sensitive that they are poisoned if they pass near the place where the plant is being burned.

The lesions appear in 24 to 48 hours after contact. Itching is first noted, then there develops a small red papule which on close inspection shows a thick-walled vesicle in the center. There is erythema and edema of the surrounding skin. These lesions occur in clusters and may appear elsewhere on the body from scratching.

This is a very annoying disease and may have serious complications. There is the usual danger of secondary infections from scratching, but the greatest danger is from carrying the poison to the eye and causing ulcerations of the cornea.

Probably the best local treatment is thorough cleansing of the skin with soap and water, and then painting the skin with 1:5000 potassium permanganate solution. The blisters should be left unopened.

Specific treatment consists of injecting an alcoholic extract intramuscularly, but this method should be used with extreme care when the patient has many lesions present. If very much is given, it will make the patient much worse. The injections are usually effective in reducing susceptibility to the poison.

Eczema.—Last, but not least, is eczema, which excluding impetigo and intertrigo is probably the most common skin condition seen in pediatric practice during the first year of life. It is such a difficult, complicated, and often discouraging disease to treat and manage that this whole paper might well be devoted to this condition. I shall limit my remarks to a few general considerations, because special knowledge, training and long experience are required to efficiently treat and manage the little patient with eczema.

1. Soap, water, silk and wool are the common contactants that make the eczema patient worse.

2. Milk, eggs, spinach and wheat are the commonest foods at fault.
3. Eczema may be caused by inhalants as well as foods and contactants.
4. It should be remembered that milk is not an indispensable article of diet. Babies can be adequately nourished on a milk-free diet!
5. Enthusiasm in eliminating foods should be controlled, since severe states of malnutrition have been seen as a result of prolonged omission. Our axiom is that it is better to have a well nourished baby with some eczema than a poorly nourished baby with no eczema.
6. The disease usually clears by the end of the third year naturally, but it should be noted that the allergic state remains, and later on the patient may suffer from asthma or hay fever.

SUMMARY

The points to be summarized in this discussion are as follows:

Skin Infections:

1. Impetigo of the newborn is a serious disease from the standpoint of the hospital and may be serious for the baby. The four main sources of the infection are the doctor, the nurse, the mother and the visitors. Rigid control of these groups is necessary to prevent unsterile contact with the baby.
2. Patients with ring worm infection usually need X-ray therapy.
3. The cure of furunculosis requires special attention to the general nutrition of the patient.
4. Scabies in children should be treated with 5 per cent sulfur ointment instead of the usual U. S. P. strength of 15 per cent.

Skin Irritations:

1. Ammoniacal dermatitis is readily controlled by using a mild laundry soap, rinsing diapers thoroughly and soaking them overnight in boric acid solution.
2. Prickly heat is treated by keeping the baby cool by frequent bathing, lighter clothing and dusting powders or calamine lotion.
3. Seborrhea or milk crust of the scalp is treated by cleanliness and 2 per cent resorcin or 10 per cent sulfur salve.
4. Poison ivy is treated by 1:5000 permanganate solution locally and specifically by intramuscular injection of an extract of poison ivy.
5. Eczema is made worse by wool, silk, soap and water. Babies can be raised without milk in the diet. One must be careful in omitting essential foods, since it is better to have a well nourished baby with some eczema than a poorly nourished baby with no eczema. The condition is usually outgrown in from 1 to 3 years, but later in life the patient may have asthma or hay fever.

Believe penicillin of value for staphylococcic meningitis. Injection of penicillin into the spinal canal or into the space at the base of the brain which contains the cerebrospinal fluid will probably be valuable in the treatment of staphylococcic meningitis, COBB PILCHER, M.D., AND WILLIAM F. MEACHAM, M.D., Nashville, Tenn., report in the J.A.M.A. for October 9, 1943. Their statement is based on results obtained in animal investigations.

The two investigators found that injection of penicillin into a vein had little if any beneficial effect whereas "intrathecal treatment . . . with relatively small doses of penicillin greatly reduced the mortality rate (from 93 per cent in control experiments to 54 per cent in treated animals)."

The preventive possibilities of penicillin for staphylococcic meningitis were not encouraging. "The number of animals which recovered was greater in the groups in which treatment was begun after injection of staphylococci than in those in which treatment was begun before injection.

"It is significant that the cerebrospinal fluid cultures remained positive for several (or many) days even in those treated animals which recovered. This is in support of the now generally accepted concept of penicillin as a bacteriostatic agent.

"At no time were any harmful effects attributable to penicillin therapy. . . .

"From our experiments it seems justifiable to conclude that intrathecal injection of penicillin is a safe form of therapy and to suggest that this method of treatment will probably be of great value in clinical cases of staphylococcic meningitis."

Their experimental study was undertaken as one of a series of investigations of the treatment of infections of the central nervous system and its coverings.

DEMEROL

A New Analgesic

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IT HAS been stated, facetiously perhaps, that medicine could be successfully practiced with three to seven drugs. In these several lists of remedies all placed opium as number one. This may have been true some decades ago, but to be candid, a list of drugs used by the average physician of today would be revealing by the number, variety, and duplications. None of us would be willing to surrender opium in some form. No adequate substitute has been found to date, but probably the nearest approach was made when Dolantin (or Dolantol) was placed at the disposal of the profession by Eisleb and Schaumann[1] in 1939. Pharmacologically it is ethylmethylphenyl-piperidinecarboxylate. It is known in this country as Demerol. It is a white crystalline substance, slightly soluble in water, alkaline, and bitter. The hydrochloride is used for medical purposes. Studies by Dugand and Heathcote of the Welch National School of Cardiff are so complete and thorough that only the clinical application was necessary to sanction its use in the practice of medicine. Shortly after its introduction, many reports appeared in German publications,[2-10] all attesting to its analgesic properties in the various branches of medicine, including ophthalmology. Within the past six months, several contributions have appeared in American medical journals, the outstanding ones being those of Batterman and Mulholland[11] and Batterman and Himmelsbach,[12] from which I shall quote freely.

The work of Dugand and Heathcote includes action on erythrocytes, paramecium, the isolated heart, the rabbit, striated muscle, unstriated muscle, guinea-pig intestine, the anesthetized animal, the intact frog, and the mouse. Regarding the power of relieving pain, it is doubtful if any sound conclusions could be obtained by action of the drug on animals, but they conclude that it is nonhemolytic and has little action on unicellular organisms; it is depressant to all forms of muscular tissue, and as an antispasmodic drug it might well be effective, in view of its antagonism to both parasympathetic and plain muscle stimulants. It was found to be relatively nontoxic, although it lowers blood pressure and depresses respiration. Schäfer[13] used it in a large number of surgical cases to replace morphine. He found it did not act as a hypnotic, but when used intramuscularly in doses of 100 mg. it relieved pain for 3 to 8 hours. He did not observe habituation or cumulative effect in a single instance, but felt that Demerol would satisfactorily replace morphine in most cases.

Schlungbaum[14] summarizes his experiences as follows, "It possesses reliable spasmolytic effect, a strong analgesic effect, and frequently a sedative effect."

He discounted the danger of addiction and noted that it was well borne by children.

In this country, Batterman and Mulholland, and Batterman and Himmelsbach have had extended and wide clinical use of Demerol, probably exceeding that of any other observers, and their conclusions seem worthy of complete confidence. They state: "(1) The spasmolytic action makes it ideal for four conditions due to smooth muscle spasm in which morphine is pharmocologically contraindicated. (2) Its rapid dissipation tends to offset undesirable cumulative effects such as respiratory depression and urinary retention. (3) Prolonged use of Demerol may lead to the development of habitualism, but it appears to possess a lesser liability than morphine for the development of physical dependence."

While tests have been devised for the calibration of pain and its relief, it is doubtful if any such tests have the same validity as the clinical use of a drug. There are so many variants that few fixed rules can serve as a reliable guide, and the evaluation of most drugs, in the final analysis, rests upon clinical experiences with laboratory collaboration.

I have been using Demerol in a surgical practice for more than a year, and as the result of that experience I have very definite opinions supported in a measure by the experience of others to whom this drug was furnished. I have not kept itemized records of the individual doses or cases, nor have I checked all cases with any more than routine laboratory examinations, but the group comprises over a hundred individual patients with many varieties of diseases, the whole being a very fair cross section of a surgical service.

For the relief of pain of a spasmodic character, such as the renal and biliary colics, it has proved a very satisfactory substitute for morphine in doses of 100 mg. hypodermically, in that the pain was controlled within 10 minutes, and the relief has lasted 2 hours or more. In several instances a sensation of flushing or dizziness was noted, but vomiting, nausea, pruritus and excitation were not produced in any case.

Demerol does not induce sleep; it is not a hypnotic, but sleep often succeeds the relief of pain. I therefore do not recommend it for insomnia unless it is due to pain. It has been my practice in operative cases to give 100 mg. hypodermically every 3 or 4 hours during the first 24 hours following the operation, and gradually to increase the period between the doses in the next 24 hours. It is rarely necessary to use it on the third day, but I depend on the barbiturates thereafter. As preoperative medication, I have tried it in a series of 50 cases but find that it is not as useful as morphine unless the patient is in pain.

I have found Demerol especially useful in those patients who tolerate morphine poorly or not at all, in whom the use of an opium derivative causes nausea, depression, itching or excitation.

In no instance has an alarming symptom followed its use, and if any idiosyncrasy exists, I have failed to observe it in over 500 administrations orally or hypodermically. In about 10 per cent of the cases in which Demerol was used, it did not prove as effective as morphine. It is very possible that the dose was too small, since I have leaned toward the cautious side and never exceeded the prescribed dose of 100 mg. It is now my impression that 100 mg. is equivalent in action to $\frac{1}{6}$ grain of morphine combined with 1/100 grain of atropine. As we familiarize ourselves with the drug, I believe that a slightly larger dose will be routine.

I have used Demerol for several months in chronic surgical cases without increasing the quantity of the drug at a dose, or reducing the interval between doses. I furnished Demerol to a physician whose wife had metastasis in the spine and pelvis following a carcinoma of the breast. He found that she could not tolerate the large doses of morphine or Schlesinger's solution necessary to relieve pain but that Demerol was the only drug that was well tolerated and at the same time dispelled the pain. It was used to the exclusion of all other analgesic drugs in the last few months of her life.

Concerning dependence on the part of the patient—addiction or habituatism, in other words—there seems to be some difference of opinion. One thing is certain, it does not create that insatiable desire for its continuation that is not unusual with opium derivatives. The obvious explanation is the failure of Demerol to induce euphoria. This is an asset rather than a liability. Demerol merely relieves pain chiefly by its spasmolytic action and does not bring the sense of well being and exaltation that follows the habitual use of opium. In that respect it is not a dependable substitute for morphine or the other opium alkaloids.

In conclusion, I would emphasize several points. Demerol has an analgesic and spasmolytic action, resembling the combined action of morphine and atropine. It is not a sedative or somnifacient in their strict meaning, but sleep often follows its use because it relieves pain. It can be combined with the barbiturates in the preoperative preparation of patients. It is distinctly indicated in pain due to spasm of involuntary muscle. It is not toxic in doses recommended and may be given orally, hypodermically or intramuscularly. There is slight risk of habituatism.

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Infectious disease immunization in large cities. Smallpox and diphtheria immunization have been more thoroughly "sold" to physicians and public health officials than have those against scarlet fever or typhoid, *The Journal of the American Medical Association* for September 18, 1943 says in commenting on a recent study of immunizations against these diseases. *The Journal* says:

"The exact extent to which preventive inoculations against diphtheria, smallpox, scarlet fever and typhoid are employed is unknown. Recently S. D. Collins and Clara Councell reported a study of the frequency of immunizations against these diseases based on reports from over two hundred thousand households in twenty-eight cities of 100,000 population or more. The cities were selected as being representative for size and geographic location. Immunizations against scarlet fever and typhoid were negligible in frequency as compared with those against diphtheria and smallpox. Diphtheria immunizations were more frequent than smallpox vaccination during the preschool ages, but after the age of 5 the reverse was true. By the age of 8, 61 per cent of the children had been immunized against diphtheria and 85 per cent had been vaccinated against smallpox. Although there was considerable regional variation, in no area were more than 5 per cent immunized to scarlet fever. A similar situation was found for typhoid, though the South was far above any other section in the percentage of immunizations to this disease. The West and North Central areas had the highest percentages of immunizations to scarlet fever. The West had the lowest percentage of diphtheria immunizations from birth through 7 years, but beyond that age the South was lowest. The Northeast, intermediate states and South all had smallpox vaccination rates above 90 per cent by the age of 8, but the North Central and West were low, the latter having reached only about 60 per cent; the latter regions too have the highest smallpox rates. It was concluded that in the preschool ages the percentages of children who had been immunized against diphtheria and smallpox increased definitely with the income. The same was true for diphtheria immunizations during the school ages, but there was little difference in smallpox immunization as between high and low incomes. Scarlet fever and typhoid immunizations increased with income in all age groups, thus indicating that these immunizations are largely the result of individual initiative rather than public programs.

"Conservative conclusions which might be drawn from this study are that smallpox and diphtheria immunizations have been more thoroughly 'sold' to physicians and public health officials than have those against scarlet fever or typhoid; the number of cases of diphtheria and smallpox in the various regions reflect the degree of immunization of the population; the number of cases immunized to scarlet fever and typhoid, however, is insufficient in all communities to affect materially the disease attack rate."

FUNCTIONAL NERVOUS DISORDERS IN GENERAL PRACTICE

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THE frequent occurrence of functional nervous conditions in our patients is not always fully appreciated. There are very few pure organicists among the internists. They tend to gather in a large group at one end of the scale, whereas many of the surgical group with strong organicist leanings occupy the other. The two groups are now more evenly balanced than they once were, but as yet a true equilibrium has not been reached. There is some justification for this division of opinion, because in our present state of knowledge we are still unable to differentiate between the functional and organic elements of our patient's problems. Closer attention to the patient's environment and emotional background will make the differential diagnosis easier.

In regard to the etiology of these functional disorders there is probably no single factor responsible. In a study of 239 psychoneurotic patients by Strecker and Ebaugh[1] the most common precipitating factor was found to be:

1. Sexual disturbances in 22 per cent
2. Accidents in 13 per cent
3. Marital crises in 12 per cent
4. Financial difficulties in 11 per cent
5. Operation in 10 per cent
6. Death in the family in 9 per cent
7. Illness in the family in 9 per cent.

It may thus be seen that in practically every case studied by them the precipitating factor can be reduced to anxiety or fear. The psychoneurotic state, whatever it may be, with its attendant symptoms is always in a queer, distorted way not only unconsciously acceptable, but actually desirable to the patient. Or to put it more plainly, it is a mechanism that springs into being in response to an unconscious demand for escape from some disagreeable fact, fancy or situation.

The most common functional disturbances with which the internist has to deal are (1) anxiety states, (2) fatigue states, (3) psychosomatic disorders, (4) hysteria, (5) hypochondriasis, and (6) effort syndrome.

Of these states I would like first to say a few words about the effort syndrome, because I think that this is not strictly speaking a psychoneurotic state but merely an evidence of an inherited organ inferiority. This condition, interestingly enough, is, in peacetimes, more common in females than in males. It develops in people who are put at tasks which are beyond their physical ability to perform. The desire, or lack of desire, of the individual to perform this exertion has no bearing on the development of his symptoms. He simply has not the physical ability to carry on. Much effort syndrome would be avoided if a more careful selection of men were made for assignment to various jobs. A man who has done clerical work is much more likely to make a good yeoman than he is to be a good seaman. A more gradual change from sedentary civilian tasks to arduous military duties would also permit a better adjustment.

The symptoms of effort syndrome are too well known to need repetition. A convenient way of thinking of the condition is to remember that these people develop at rest the symptoms which a normal person would develop after moderate to severe exertion.

These patients do not belong on the neuropsychiatric service. There is no psychiatric problem. Many of these men could be used as yeomen or in other noncombatant positions, but under present navy regulations they probably should be surveyed from the service because they are certainly not suited for any or every type of duty.

Anxiety States

In this condition there exists a state of mind characterized by an abnormal degree of fearful anticipation of things or events which are merely remotely probable. The cause of this state of mind may not be immediately apparent. In many persons there seems to be an innate tendency to cross bridges before coming to them. In many, disappointments or fear may be the precipitating factor. In others, a feeling of great loss or inability to cope with a situation may bring on an attack. In certain predisposed individuals the condition once initiated may continue after the cause has been removed or even forgotten. They transfer their original fear to a conviction that the attacks are due to heart disease or some other somatic disorder. It should be emphasized that fear is a much more potent factor in the pathogenesis of mental disorders than is sex.

Quite naturally the symptoms in this mental state as in all others which we will discuss vary according to the severity of the condition. In general, it may be said that the outward manifestation of the anxiety states is the physical accompaniments of fear. The symptoms that one experiences a few minutes after he has "almost" had an automobile accident are those which the anxiety patient feels more or less constantly. Most typically he complains of a "sinking sensation" in the pit of his stomach, palpitation (consciousness of the heart's action), weakness in the arms or legs, tremor and perspiration. These symptoms usually occur in attacks which the patient often calls "heart attacks" because of the associated palpitation and shortness of breath. At times it may be difficult to distinguish between these anxiety attacks and certain heart conditions, but as the patient is studied the nature of the attacks soon becomes apparent. These patients are frequently of the so-called "worrisome type" who are always anticipating some great disaster or horrible tragedy. On the other hand, more stable and less emotional types of individuals are likely to suffer from anxiety attacks during or following emotional crises such as the death of a loved one, great financial loss or the loss of a lover. Once the nature of these attacks is explained to this type of patient he usually recovers fairly promptly. "War nerves" is largely an anxiety state.

Less frequent symptoms of anxiety states are dry mouth and lips, frequent loose, urgent stools, frequency of urination, increased pulse rate, facial expression of fear, and elevated blood pressure.

Anxiety states are frequently mistaken for hyperthyroidism and many needless thyroidectomies have been performed.

Fatigue States

In this condition, there is a state of mind characterized by a subjective sensation of physical exhaustion and a feeling of inability to carry on. Neurasthenia most frequently results from overwork, particularly when the work is done under pressure or accompanied by anxiety. Hard work carried on over a long period of time without sufficient rest is often an etiologic factor. Some people bear responsibility poorly, and nervous exhaustion frequently results in these predisposed individuals.

This is the condition which is usually meant when the patient says that he has had a "nervous breakdown." It is helpful in seeing these patients to think of neurasthenia as being due to two major types of reactions. The first, and less serious, may be due to boredom, so that when the patient says that he is tired he may merely mean that he is tired of his ordinary routine. The second, and more serious, is the constitutional type in which the individual has broken down because of his inability to stand the pressure of his activities. Such breakdowns are always indicative of overwork. The only question to be considered is whether the individual failed under pressure which should ordinarily be borne. Certain personality types fail very quickly when placed under undue strain. Many such breakdowns may be avoided by careful observation and selection of more stable personality types for responsible positions and frequent vacations or change of work for neurasthenic persons.

The common symptoms are a feeling of physical exhaustion, a sensation of a tight band being drawn around the head, a sensation of pressure at the base of the skull, easy fatigability, poor memory and a confused state of mind, insomnia, grouchiness, and sexual irritability (even to the point of erection and ejaculation). The condition resembles anxiety states except that the feeling of anxiety, apprehension and tension are absent.

The appearance and persistence of any of these symptoms should be regarded as a warning of overwork and a signal for more recreation. Very frequently a change of activity is more helpful than a rest. Much valuable vitamin B complex has been poured into these people without effect.

Psychosomatic Disorders (Organ Neuroses)

In this group are included a large number of diversified conditions which have in common the fact that the somatic (organ) complaints are based on some psychic upset. Many physicians appear to find it difficult to understand how a mental state can produce organ manifestations. I have always found it useful in speaking to patients about their troubles to describe to them the interrelations of the sympathetic and central nervous systems. The way, therefore, that the functions of various organs may come into consciousness is better understood. Under ordinary circumstances we should have no awareness of the automatic functioning of the body. Any such consciousness indicates a certain degree of abnormality. In the understanding of the development of these psychosomatic disorders it is always helpful to think of the nervous system as an electrical hook-up and when an impulse of unusual strength, e.g., anxiety or fear, arises in one part of the system it may be able, by its very potential, to flow through pathways which it would not ordinarily reach and thus produce reactions in unaccustomed places. For each individual so affected there seems to be a particular pathway through which the impulse flows, so that, for one, the heart may be affected (cardiac neurosis), in another, the stomach (gastric neurosis), and in another the urinary apparatus. Many such conditions we recognize in our everyday work, e.g., the medical student who always has diarrhea before examinations, the child who always vomits when she is frightened, and the woman who gets hives when her children are out late. Another way in which symptoms may be produced on a functional basis occurs in the "hyperventilation syndrome."

For some individuals, such attacks may be only an occasional occurrence; for others they may be more or less continuous. In all, however, the appearance coincides with a period of stress. These patients present a serious diagnostic problem to the physician, because it may be very difficult in certain cases to distinguish such functional disturbances from organic disease. It may be only after prolonged study that such a differential diagnosis can be made. One mistake which should be carefully guarded against is to fail to look for organic disease in an obviously neurotic patient. No matter how neurotic an individual may be, he may still have some organic disease. These patients are frequently those who travel from one doctor to another because they feel that their former medical adviser did not understand their case. This problem is enhanced by the fact that many physicians tell these patients that their ills are "imaginary." This is obviously not a true statement of the case. The complaints from which they seek relief are real enough; the organs are actually disordered, and the patients have the pain and discomfort of which they complain. It is the cause which must be sought and removed. Treatment of the symptoms is of little avail. If the production of the symptoms is thought of as the result of an overflow of impulses from the central to the sympathetic nervous system as outlined above, no one will make the mistake of calling these disorders imaginary.

The most common psychosomatic upsets occur in the form of headaches, gastrointestinal disturbances, and impotence. It is unusual for an individual to be affected in more than one region at a time, although he may in successive upsets be disturbed in different spheres. There is no particular point in discussing the symptoms in each type of disturbance except to say that usually they are the result of overaction in one of the viscera; e.g., vomiting is usually the result of overaction of the pyloric sphincter at the lower end of the stomach, abdominal cramps are usually the result of excessive intestinal peristalsis, and heartburn is due to excessive production of hydrochloric acid in the stomach. The condition is usually designated according to the organ affected and is referred to as a gastric neurosis, a cardiac neurosis, etc.

Less known conditions which should probably be included, in most instances at least, in a discussion of psychosomatic disorders are hives, asthma, gastric and duodenal ulcers, spastic constipation, some forms of diarrhea, mucous colitis, psychic impotence, urinary urgency and frequency, incontinence of semen, paroxysmal tachycardia, and essential hypertension.

It should perhaps be mentioned that gastric and duodenal ulceration are definite organic diseases when fully developed. It is only in their pathogenesis that the neurotic disposition plays a part.

HYSTERIA

Hysteria is a condition which, while difficult to define in a few words, is usually easy to recognize. It is difficult to define, because, while it may resemble the pattern of many diseases, it does not ring true for any. The results of the hysteria usually resemble loosely some neurologic disorder, but, as manifested in the patient, they do not follow any true anatomic distribution of nerves. The anesthesia of which the patient complains does not follow the distribution of the sensory nerves. Hysteria may also be manifested by uncontrolled or excessive reactions, as, for example, the well known hysterical crying and laughing spells.

The etiology of hysteria is simply that the individual so affected wants something. This fact remains whether the hysteria is that of the seaman who becomes paralyzed through fear or the bride who faints because she did not get her own way. This does not mean that in each instance the individual so affected reasons out each step and then decides to perform his hysterical action. It means only that this is the way that this type of individual seeks to get what he wants.

Recognition of the hysterical individual is usually easy, but here again care should be taken in differential diagnosis or a grave injustice may be done. The hysteric usually presents himself, or more frequently calls you to him, well dressed and self-complacent. He usually tells with great delight his physical ailments or relates with great detail his narrow escapes. He usually has just escaped death in one form or another. Diseases always affect him more severely than they do others. This information is frequently given in low tones which almost necessitate contact between the two parties. The slightest criticism is apt to bring quick resentment. Changes of mood are frequent and truth is of minor consequence. Hysterics caught in a lie will scarcely pause for a breath but go on and tell a bigger and better one. They seem not to be influenced by shame, but seek merely how best they may get what they want.

HYPOCHONDRIASIS

In this condition the chief difficulty is a morbid concern over the health. By many it is considered merely as one form of an anxiety state. It presents such a clear-cut picture, however, that it is usually considered separately. This state of mind differs from a psychosomatic neurosis in the fact that in the case of the latter there is actually a disturbance of function due to the emotional upset which brings it on, whereas in hypochondriasis the patient is conscious of the normally functioning organs. Such patients may be aware of the beating of their hearts or the movements of their intestines when there is no demonstrable disturbance of function. The symptoms most frequently arise in organs in which the localization of trouble is difficult. For example, a frequent complaint is headache. The menstrual function is also a frequent source of trouble.

The origin of this particular mental state is sometimes difficult to determine. Parental concern over the health of their children may perhaps give rise to some cases. Unwise investigation into medical literature accounts for some others. Medical students during their period of training frequently suffer from each disease that they study. In many cases unwise remarks or improperly understood statements of physicians give rise to the condition. A thoroughly made and carefully explained physical examination has never in my experience given rise to either hypochondriasis or an anxiety state. On the other hand, a thorough physical and mental investigation with reassurance in regard to the normal state of the organs frequently results in a cure even in severe cases. Hypochondriasis is a means sometimes employed by parents to keep their children near them. It may also be a source of secret and perhaps little understood pleasure in certain masochistically-inclined individuals who because of the obscureness of their symptoms require repeated and painful examinations. It also secures for them for the time being at least the individual attention of another individual.

The prognosis for cure in these cases is very poor. Unless the condition produces great economic strain or family discontent it need not be a cause for great concern and usually does not progress.

As you can see, the medical practitioner is called upon frequently to diagnose conditions which are regarded by many as belonging in the domain of the psychiatrist. These patients usually find their way first to the physician, and it is important that they be recognized as belonging on the psychic level. For this reason the physician who recognizes their condition will save the patient much needless treatment and considerable expense. In describing these states I have attempted to use language which most doctors will understand rather than to mask my meaning in the weirdly devised terminology of many of our psychiatric friends.

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New synthetic female sex hormone. A new synthetic female sex hormone, octofollin, is effective in the treatment of female climacteric or change in life and appears to be relatively nontoxic in contrast to diethylstilbestrol, another synthetic female sex hormone which has been in use lately, according to the statements in two reports in *The Journal of the American Medical Association* for October 2, 1943. ALVIN RAY HUFFORD, M.D., Grand Rapids, Mich., from the results he obtained in treating 21 women, says octofollin, when administered by injection into a muscle, was effective and nontoxic. HAROLD K. ROBERTS, M.D., ELLEN LOEFFEL, M.D., AND CYRIL M. MACBRYDE, M.D., St. Louis, obtained similar results in 44 women treated. They administered it by mouth.

President's Page

"THANK YOU!"

The high spot during the term of any President of the Medical Society of the District of Columbia is the Annual Scientific Assembly. It was an unusual privilege for me to be President this year because the Assembly was by any standard of measurement a most successful meeting. Furthermore, I am certain that the program and the exhibits presented could not have been duplicated anywhere else in the country. This is largely due to the fact that we are situated in the Nation's Capital where eminent physicians and scientists and the finest materials for exhibits are available in wartime.

I praise the 1943 Assembly without reservation because the credit for putting it on is not mine. It is a pleasure to express my gratitude to Dr. Arnold McNitt, General Chairman of the Committee on Arrangements, and his very enthusiastic and capable co-workers. Every one of the chairmen of the subcommittees did a splendid job. I will be very much pleased if our members well recognize their fine services by speaking to them about the Assembly. Many of them spent hours on end preparing for this meeting. Their only compensation was the satisfaction of a task well done.

I shall not mention here, because it will be reported elsewhere in the Annals, the various features that stood out at the Assembly. I will say this, however, that members of the Society who failed to attend missed a great deal. This Assembly will go down in medical history as one to be long remembered.

To all who aided in the preparation for the Assembly, I wish again to say, "Thank you!"

Fred R. Sanderson

Editorials

SULFAMERAZINE

The search for a sulfonamide having greater therapeutic effect and less toxic potentialities than the sulfonamides now in general use is continuing. One of the drugs selected for clinical trial has been sulfamerazine, the methyl homologue of sulfadiazine. Reports[1-6] concerning the use of this derivative have now attained a scope which permits at least a tentative appraisal of its value.

Compared to sulfadiazine, sulfamerazine is more rapidly and more completely absorbed from the gastrointestinal tract, so that high blood levels can be secured more quickly. Furthermore, the blood level can be maintained satisfactorily by means of somewhat smaller doses given less frequently than is necessary with sulfadiazine. Sulfamerazine is readily distributed through body fluids and is slowly excreted in the urine. Both the free and the acetylated forms of the drug are much more readily soluble in water than similar forms of sulfadiazine.

In cases of meningococcic meningitis and pneumococcic pneumonia, therapeutic results with sulfamerazine compare favorably with those previously reported for sulfadiazine. The record for sulfamerazine in other types of infection supposedly amenable to this form of therapy is similarly good, although the numbers of cases are too small to permit safe comparison with other sulfonamides.

Toxic reactions from sulfamerazine generally have been comparable in frequency and severity to those from sulfadiazine. However, both groups of authors who have reported particularly on the treatment of meningococcic meningitis noted a slightly higher incidence of such reactions with sulfamerazine. It has been intimated therefore that the drug may have stronger toxic tendencies than sulfadiazine in cases in which sulfonamide therapy must be continued longer than is necessary in the usual case of pneumococcic pneumonia. Because of the unfortunate tendency of another sulfonamide containing a methyl group (sulfamethylthiazole) to provoke serious neuropathologic changes, all investigations of sulfamerazine have included a careful watch for peripheral neuritis and similar complications. To date none have been reported, and apparently they are not to be anticipated. Since sulfamerazine is much more readily soluble than sulfadiazine, it is to be hoped that the incidence of renal complications due to precipitation of crystals in the urinary tract will be lower with the new drug. It is noteworthy, however, that several instances of this type have already been reported. Obviously, therefore, the greater solubility of sulfamerazine is not a complete protection in this regard.

It seems safe to conclude from the evidence thus far presented that this most recently investigated sulfonamide is about equal in most respects to sulfadiazine. Certain of its attributes, particularly the speed and completeness of its absorption after oral administration and its greater solubility, justify further clinical trial in the hope that a larger experience will reveal a significant superiority.

H. H. H.

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WHY A GRIEVANCE COMMITTEE?

No doubt most of us have asked ourselves this question casually, and have taken comfort and satisfaction in the thought that there is such a committee to listen to complaints and criticisms from our colleagues or patients, to relieve us of annoyance and protect us from their ill effects. It is quite proper that we should think in this fashion, but acquaintance with the work of the Committee, speaking as one of its members, suggests that each of us should be more aware of its functions and more keenly alive to our individual and collective opportunity and obligation to enlarge and promote its usefulness. That this end may be attained, it is necessary that we be familiar with the sources of the material to which the Committee must give its attention and the channels through which it reaches us.

First, there are the complaints of one physician against another within the Society. It is gratifying but to be expected that these constitute a very small part of the work, for they are extremely rare and readily susceptible of adjustment "within the family." On the other hand, when criticism is directed from without, the problem is far less simple. It may be sufficiently complex when submitted, as a single point of disagreement, by an individual. It will be readily understood that it becomes more and more complicated and requires a delicate balancing of many factors when friends and relatives, professional and other civilian groups and organizations, the Health Department, or the District Attorney's Office come into the picture. A moment's thought will make it clear that the function of the Committee is not merely to arrive at a just conclusion after careful study of the facts but to present its decisions and recommendations in such a manner as to satisfy all concerned. This implies establishing the conviction of the honesty and impartiality of the Committee and the thoroughness of its investigation. The circumstance that this is a group composed entirely of members of the Medical Society makes this task at times a difficult one, for it at once suggests to the complainant that his cause is prejudiced from the start. Strangely, too, our own members are not always free from the thought that the Committee may not be sufficiently considerate of its rights and privileges.

It then becomes necessary, in order that the confidence vital to success in this work shall be established and maintained, that we keep in mind that our real purpose is not merely the settlement of specific "cases" but the discovery and application of principles which will be of permanent value to us as a part of the community.

The inevitable corollary of this thought is that the Committee in many instances devises and recommends reasonable concessions on both sides provided each party to a dispute maintains at least an open mind, better still a conciliatory attitude based on the assumption that his opponent honestly believes in the correctness of his position.

While the Committee does not consider itself a court of law and has adopted the policy of avoiding consideration of controversies in which legal action is contemplated by either party, it is well aware that the complaints and criticisms submitted to it, its investigations and deliberations and its conclusions are at times known to and of interest to many individuals and groups. This fact is constantly kept in mind lest the attempt to bring about an amicable arrangement shall introduce factors prejudiced to such action as might be taken later on these or other questions. The responsibility and the restrictions thus enforced are evident. Finally, while comparatively few "cases" are formally presented to the Committee, these very certainly represent only a small portion of the instances of dissatisfaction and criticism directed against doctors as individuals and the Society as a whole. This is, of course, in tune with the workings of human nature in that the volume and variety of criticism is in direct proportion to the prominence of an organization and the importance of its service to the community. Nevertheless, these complaints which are not officially registered are certain to multiply and grow in magnitude to form a constantly present background of unpleasant and disturbing shadows.

The Committee has sought out any fundamental principles which might be recognized as common to a large proportion of the disagreements and as such might be made the basis of fundamental and broadly applicable treatment. It is definitely of the opinion that the most frequent and most irritating feature is directly or indirectly associated with the matter of charges for services rendered. All of us are sufficiently familiar with manifold ways in which this problem may present itself. We therefore believe that the purpose of our discussion will be accomplished by calling attention and emphasizing the feeling of the Committe on this point and urging our members to give thoughtful consideration not only to their charges but to the financial conditions and obligations of their patients. In this way and by readiness to attempt to reach a satisfactory settlement by direct conference or correspondence between physician and patient, the work of the Grievance Committee may well be reduced to the vanishing point. Similarly, the complaints which are in no way related to the matter of professional fees are at least in large measure susceptible to adjustment between the individuals concerned.

It should be emphasized that much can be accomplished by arbitration and conciliation in the beginning of a disagreement before both sides bring up the heavy artillery of justification which more often than not results in a mortality of hurt feelings, pride and loss of friendships.

The Grievance Committee reflects as in a mirror the answer to a prayer we have often lightly made, as often hoping it will not be answered:

> "Oh wad some power the giftie gie us
> To see oursels as others see us!"

Perhaps those who criticize us do not always see right, but we will do ourselves and our Society a real service if we make the picture our patients do see as free from what appears to them as shadows as we may.

GRIEVANCE COMMITTEE
J. W. Lindsay, M.D., *Chairman*
William Earl Clark, M.D.
Henry J. Crosson, M.D.
Jerome F. Crowley, M.D.
W. Cabell Moore, M.D.
Francis X. Courtney, M.D.
Frank A. Hornaday, M.D.
William B. Marbury, M.D.
R. Massie Page, M.D.
Theodore Wiprud, *Secretary*

HEALTH—A JOINT RESPONSIBILITY

Those who are critical of the medical profession sometimes forget that physicians are indispensable to any program for the delivery of medical care. For without the services of competent medical practitioners, the best plans would come to nought. Upon them rests complete responsibility for the maintenance of the high standards of medical practice. Physicians have an interest also in other aspects of medical care, but not necessarily an exclusive one. This is something that doctors are liable to overlook. For example, all citizens, physicians or laymen, have an equal interest in the socio-economic aspects of medicine.

Having arrived at this conclusion, the New York Academy of Medicine recently created a Committee to Study Medicine and the Changing Order. The Committee's objectives were defined as follows:

"To be informed on the nature, quality and direction of the economic and social changes that are taking place now and that are clearly forecast for the immediate future; to define in particular how these changes are likely to affect medicine in its various aspects; to determine how the best elements in the science of medicine and its services to the public may be preserved and embodied in whatever changed social order may ultimately develop."

In carrying out these objectives, the Committee plans to survey changes that are currently taking place and to consider others likely to take place during the next decade. Information is to be solicited from a wide variety of groups, including sociologists, economists, representatives of organized labor, industrialists, bankers and politicians. In a release to the press, the Committee stated: "Every shade of political and economic thought is to be represented."

Some months ago, the Medical Society of the District of Columbia created a Committee on Medical Service which in coöperation with its Committee on Medical Economics is engaged in a study and development of a comprehensive health program for the District. Conferences have been held by officers of the Medical Society with physicians, health officials, and laymen who are leaders in their respective fields for the purpose of obtaining their views on medical care. Data have already been obtained which will prove valuable when the Society considers a definite program.

The deeper the officers of the Society delve into the medical care problem, the more firmly they are convinced that it cannot be solved by the medical profession alone. It is one which must be shared by representatives of the Government, business, labor and other groups. Only by coöperative action and mutual understanding will the health needs of the people be fully met.

In and Out of Focus

BY THE OBSERVER

Assembly in Retrospect

This Observer is very happy to report that the 15th ANNUAL SCIENTIFIC ASSEMBLY, despite the obstacles confronting Dr. Arnold McNitt, General Chairman, and his Committee on Arrangements, was an outstanding success. Not only were the program and the exhibits of the highest order but the attendance topped all previous Assemblies. The total registration was 2,101 of which approximately 1,100 were physicians, many of them visitors and medical officers stationed in or near Washington. As in previous years, hospital residents, interns, and senior and junior medical students from Georgetown and George Washington University Medical Schools were also in attendance. An official "break-down" of the attendance figures will be published in the November issue of the MEDICAL ANNALS.

Few members realize the effort that goes into the ASSEMBLY and how much they are indebted to the General Chairman and the chairmen of the subcommittees on whom are placed the responsibility for various tasks. For example, the scientific program requires weeks of work and many hours devoted to correspondence. A great deal of careful planning is devoted to the exhibits before they are set up. Special events give their sponsors many headaches, and the necessary preparation is time-consuming.

Although there are genuine satisfactions in putting on the ASSEMBLY, there are also disappointments in any meeting of its quality and size. The excellent attendance has been mentioned but an analysis of the figures discloses that too many physicians right here in Washington were not present during the three days. They could ill afford, busy though they may have been, to neglect a meeting that was described by many in attendance as one of the finest that has been presented in Washington for a long, long time. Then, too, there were plans that did not materialize as anticipated. However, from these experiences those guiding the ASSEMBLY have learned what not to do in the future.

On the other side of the ledger, there were the unusually fine programs, the excellent Scientific and Public Health Exhibits made possible by the Army, Navy and Public Health Service, medical colleges, hospitals, health agencies and individual physicians. Any medical organization, national or state, would have been proud of this display. The Nutrition Exhibit, the first of its kind, attracted wide attention and much favorable comment.

Attendance at special events was most gratifying. A large audience was present to hear the Honorable Joseph W. Martin, Jr., House Minority Leader and Congressman from Massachusetts, speak on "America Must Not Be Shackled." A portion of this address will be published in an early issue of the MEDICAL ANNALS.

The reception on the final evening for the Surgeons General of the Army, Navy and the Public Health Service, and the special showing of the films "The Life and Death of the Hornet" and "The Battle of Russia," provided respectively by the Navy and the Army, made this a never-to-be-forgotten affair. Both of the films were profoundly impressive and moving. Those in charge of the ASSEMBLY were pleasantly surprised at the attendance on this occasion. By actual count by one of the members of the subcommittee in charge, 1,467 persons were present. Every seat and all available standing room was taken in the Grand Ballroom of the Mayflower Hotel, where the event was held.

There were other features that cannot be mentioned here for lack of space, but they all contributed to the ASSEMBLY's success. Mrs. Fred R. Sanderson, President of the Woman's Auxiliary, and her co-workers, lent invaluable assistance to the Committee on Arrangements. The Women's Medical Society, too, helped to make the ASSEMBLY a success.

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O.P.A. Issues New Food Directive

In the August issue of the MEDICAL ANNALS your Observer reported in these columns that a protest had been lodged with the District Rationing Officer against the new requirements relating to the procurement of additional food by ill persons. As a result of this protest and further discussion with District O.P.A. officials, the following memorandum was sent to rationing boards by the District O.P.A.:

> Section 2.5 of RO 13 and Section 2.4 of RO 16 provide that consumers may obtain additional rationed foods as medical requirements. We feel that (1) consumers who are ill should not be forced to undergo any unnecessary hardships by having to make several trips to boards, and (2) physicians cannot be expected to waste time unnecessarily since those who are not serving with the Armed Forces are extremely busy, and (3) physicians cannot be expected, in view of their onerous duties, to keep themselves posted on the constantly changing point values in order to translate food prescriptions into meat and processed food points.
>
> The following plan for handling consumer applications in cases of medical need should therefore be followed:
>
> 1. Consumer applications on OPA Form R-315 may be submitted in person or by mail.
>
> 2. A doctor's certificate of need may be written on the application (OPA Form R-315) or may be attached in a separate memorandum or statement.
>
> 3. If attached in a separate memorandum it may be written, typewritten or printed provided only that it is signed by a person authorized to do so. If the form is a printed one, the certificate should state the amount and type of extra foods in pounds, not necessarily points. It should also state definitely the period for which the applicant will require additional foods, as well as other information required by the regulations.
>
> The Board shall compute the points of the total food needed over the two-month period, or less as the case may be, figuring the points as closely as possible from the Official Table of Point Values and taking into consideration the fact that the consumer already has some points by reason of his War Ration Books.
>
> 4. Since a consumer may obtain extra rationed foods for not longer than a two-month period, he may apply

again for as many periods as needed on OPA Form R-315. However, only one physician's certification is needed to cover all applications made by an individual during a period of illness. Thus if a person is and will be diabetic for life, only one doctor's certificate is needed as long as rationing continues.

5. Applications should be processed promptly. In the event that there is any doubt as to the physician and whether he is licensed to practice, you may call Mr. Theodore Wiprud of the Medical Society of the District of Columbia, Telephone District 3111, for verification.

6. If you find that everything is in order you may then notify the applicant by mail to call for his or her ration certificates. In cases of this type, certificates should be prepared and ready to issue, without delay, to the applicant. Persons who are ill should not have to wait any longer than is absolutely necessary.

★

The Loyal Opposition

Deep feelings have been aroused over the manner in which medical care shall be provided in the future. In fact, the bitterness engendered has led to some pretty blunt talk and not infrequently to name-calling. In looking over a number of recent medical journals, your Observer finds that some editors have thrown off any pretense of restraint in discussing health legislation now pending in Congress.

Here is a choice bit from the *Bulletin of the Columbus Academy of Medicine:*

> "Away back in the good old days when section hands, boilermakers and longshoremen were mostly men and the beer wagons cluttered noisily over the cobblestone streets of our fair city, they used to tell of the jocose and rubicund bartender who worked in Eddie Pfeiffer's Saloon and who, when Eddie was out for a time, would stand at the cash register and, somewhat in the manner of a budding pianist playing chopsticks, would finger the keys to the tune 'This place will soon be mine.'"
>
> "Knowing the nature and the temper of the proletariat darlings of the New Deal after perusal of his [Senator Wagner's] latest irrational brainstorm, Senate Bill 1161, which provides free beer and medical care to 110 million citizens at a cost of three billion dollars, he, too, doubtless hummed that same little ditty, 'This place will soon be mine.'
>
> "This latest hairbrained fantasy to destroy the private practice of medicine in the United States is right in a class with the Townsend Plan for sheer unadulterated insulting absurdity and, while it might by its very unmitigated gall and brass serve to divide the ranks of the dim-witted protagonists of that now decadent scheme, it's like some of the raw whiskey consumed for snake bite—more apt to be lethal than the cause for which it was taken.
>
> "One thing you'll have to say for the New Dealers, they're willing to learn, but like some of the wondrously clever criminals we read about, it seems a shame they've never set their talents to a good purpose."

In the heat of battle, we may forget one important thing and that is that whether we favor more Government in medicine or less, we all have the same objectives. We desire that adequate medical care be provided our people. In others words, we are first of all loyal Americans who though we may not agree on the means to be employed are in complete harmony as to the ends.

The public forum is an American institution. Here the individual can express any views that he may have. Sometimes pretty stiff blows are exchanged. On a recent radio forum, health needs of the Nation were analyzed by a number of experts. In the debate that followed the formal presentations, the discussion, to say the least, became personal. Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association*, is not one to take brickbats lying down, and he swung a few hefty haymakers. The imperturbable Henry Kaiser calmly stuck to his guns. His demand that Dr. Fishbein answer his query about the number of persons covered by voluntary sickness insurance ran like a theme through the whole discussion. In general, he and Dr. Fishbein were in agreement that medicine should remain free of Government control. Others who "went to bat" for their views were Dr. Kingsley Roberts, Mr. Robert Lee Watt and Dr. Ernst Boas.

Such a free-for-all debate is a fine thing. It stimulates progress for eventually all individuals and groups interested in health problems will find an acceptable solution. We all belong to the loyal opposition, which in no way affects our loyalty to our country.

More About the Washington Office

Since the meeting of the House of Delegates of the American Medical Association last June, there has been much discussion in regard to the proposal that the Association establish a Washington office. Nearly every state medical journal has commented upon this subject as have a number of county medical society bulletins. There seems to be a unanimity of opinion as to the desirability of such a step and a belief that the A.M.A.'s newly created Council on Medical Service and Public Relations will eventually open an office in the Nation's Capital.

Some of the comments would lead to the conclusion that there is no source of medical information available to legislators in Washington. Of course, that is not true. Officers and representatives of the American Medical Association who are often in Washington confer frequently with public officials. The Headquarters Office also furnishes considerable information to those who request it. The Secretary of the Medical Society of the District of Columbia has supplied data to Senators and Congressmen on a number of occasions. Recently in communicating with Congressmen who are physicians, President Sanderson of the District Society informed them that the facilities of the Society's office are at their disposal.

While it is true that the District of Columbia citizenry is voteless and therefore their opinions do not weigh heavily with many members of Congress, they are certainly not ignored. As a matter of fact, legislators seeking medical information have frequently requested data of and consulted with the representatives of the organized medical profession in Washington. So it cannot be said that the medical profession has no representation in the Nation's Capital. However, we agree that the situation could be much improved. In fact, our Society is on record in favor of a Washington office.

Dr. Parran Did Not Dodge

One public official who must be prepared these days for some pointed questioning by the medical profession is Dr. Thomas Parran, Surgeon General of the United States Public Health Service. If the Wagner-Murray-Dingell bill should become law, he will be a powerful person indeed, in so far as doctors are concerned. Recently he visited Kansas City, Missouri, where he spoke to the members of the Jackson County Medical Society. Dr. Harry L. Jones, President of the Society, said this in regard to Dr. Parran's appearance before the group:

> "The purpose of his visit to our city was to give impetus to the forthcoming Government-sponsored nurse training program. No doubt all the medicos present were more or less familiar with the Wagner-Murray-Dingell bill and its proposed three billion dollars yearly from taxes for medical care and medical training, this huge sum to be administered by the Surgeon General of the U. S. Public Health Service. And now the Surgeon General was in our midst. We were all properly indignant that he should have sanctioned such a plan, if he did not actually propose it. We were determined to find out what he thought about this plan and what part he had in it.
>
> "General Parran did not dodge the issue. He informed us that he was not consulted and had no part in the framing of this proposed legislation—that he regarded it as the background for some needed changes in caring for the unfortunate sick; and he sold his ideas to the crowd assembled there, so that those 'who came to scoff remained to pray.' "

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U.S.S.R. Honors American Scientists

Your Observer was privileged to be among those present on August 12 at the Soviet Embassy in Washington when Dr. Walter B. Cannon, Professor Emeritus of Physiology at Harvard and President of the American-Soviet Medical Society, was inducted as a member of the Academy of Sciences of the U.S.S.R. Two other American scientists were similarly honored on this occasion, Dr. Ernest O. Lawrence, Professor of Physics, and Dr. Gilbert

N. Lewis, Professor of Chemistry, both on the faculty of the University of California.

In honoring these gentlemen, Andrei A. Gromyko, now Russian Ambassador to the United States, speaking for the Academy, stated that Russian scientists were "profoundly confident that the hour is not far off when Russian, British and American scientists and our colleagues in other countries will meet at an international congress to share scientific achievements which will have helped bring back peace and freedom to humanity."

Following the presentation of honorary memberships, Dr. Cannon addressed the assembly. Among those present were eminent scientists from universities throughout the land. It was a memorable occasion for those who were privileged to attend.

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A.B.A. Backs A.M.A.

It appears that the American Bar Association likes the Wagner-Murray-Dingell bill no better than the American Medical Association. At a meeting of the Bar Association's House of Delegates held last August, a resolution which read in part as follows was adopted:

> "The House of Delegates is opposed to any legislation, decree, or mandate that subjects or subordinates the practice of medicine to Federal control or regulation beyond that imposed under the American system of free enterprise."

There was some discussion in the House as to whether the affairs of the medical profession were of legitimate concern to lawyers. The conclusion was that "on account of the similarity of this question between the medical and legal professions the matter comes within the scope of the Association."

★

Better Family Doctors

Some interesting observations made by Brigadier General David H. W. Grant, The Air Surgeon, United States Army Air Forces, were recently reported in the press. General Grant is quoted as stating that the family doctor is "coming back" after the war. Speaking specifically of flight surgeons, he says that even though they are specialists, they are required to attend all the medical needs of individuals under their care. In this way they are being well prepared to do general practice, in which preventive medicine will have an important part. The flight surgeon must be alert for signs of fatigue, emotional upsets, and organic disease of men flying our planes. In other words, his job is to keep them fit so as to "keep 'em flying."

Rear Admiral Ross T. McIntire, Surgeon Genal of the United States Navy, in addressing the 15th Annual Scientific Assembly on October 2, also emphasized the fact that physicians returning from military service to civilian practice will apply preventive medicine to a much greater degree than has been done in the past.

★

He Was a Doctor First

Those of us who have attended annual meetings of the American Medical Association over a period of years were well acquainted with Dr. Arthur T. McCormack of Louisville who died on August 7. Dr. McCormack was a kindly man who, despite the fact that his duties as State Health Commissioner of Kentucky and Secretary of the Kentucky State Medical Association were largely administrative, was first of all a doctor. Your Observer looked upon Dr. McCormack as an able and a wise man. At meetings of the House of Delegates of the Association he always sat in the front row. Usually when a matter of serious importance was discussed, Arthur was on his feet. He was always conciliatory and his judgment was usually good. More progressive than many colleagues his junior in years, he was tolerant of those who held different views.

Dr. McCormack was a gentleman whose fine qualities will long be remembered.

War Section

THE FAMILY PHYSICIAN AND THE U. S. CADET NURSE CORPS

Thomas Parran, M.D., F.A.C.P.
Surgeon General of the United States Public Health Service

The needs of the war effort make imperative a considerable increase in the numbers of nurses for essential civilian and military nursing services. To aid in meeting this need, the Congress, in passing the Bolton Act, has created the United States Cadet Nurse Corps.

It is natural that young women who contemplate joining the Cadet Nurse Corps will turn to the family physician for advice and guidance on this matter. In pointing out to the prospective cadet nurse some of the reasons why she is needed and how joining the Corps will benefit both herself and her country, the physician on the home front will be making still another patriotic contribution to the prosecution of the war. Furthermore, it is to the physician's own interest to stimulate recruitment, since as his load of work becomes heavier, nurses can be of increasing assistance to him not only in hospitals but also in his office and in his patients' homes.

To aid the physician in giving counsel which is specific and which will lead to action on the part of the Cadet Nurse candidate, the following suggestions are offered.

The Bolton Act

In essence, the Bolton Act provides for grants-in-aid to nursing schools whereby the student nurse is relieved of the burden of tuition, fees, and other expenses which she ordinarily would have to meet herself, and in addition she is paid a monthly stipend. Schools participating in the program will continue to select their students and to plan and operate their own curricula. Certain broad requirements are specified with regard to minimum standards of nursing education, acceleration of the curriculum, and agreement by each cadet nurse that she will continue in military or essential civilian nursing service for the duration of the war.

The effect of the Bolton Act will be to produce more nurses by stimulating recruitment of students and by speeding up training. Recruitment of student nurses has met severe competition from the many opportunities available at present to high school graduates, especially in the uniformed services and in war industry, where pay is immediate without further training. Allotments of funds to the nursing schools will aid in meeting this competition, and will further assist the schools in accelerating their curricula so that training will be more rapid.

Need for 65,000 Student Nurses

Several factors have combined to create the present shortage of nurses. Sixty-five thousand new students in our nursing schools this year has been set as the goal to help relieve this shortage.

By recruitment of an increased number of students and providing an accelerated curriculum the program will enable student nurses to fill many of the needs in hospitals and to release graduate nurses for military and civilian war services.

More people are being hospitalized. Hospitalization saves the physician's time, and civilian physicians are fewer in number and busier now than ever. More people are having babies. The financial burden of hospitalization is less than formerly because people have higher incomes and because of increased use of hospital insurance. Full hospitals need more nurses.

A large number of nurses have already joined the Army and Navy and many more are needed as the strength of our forces increases; the current requirement is 2,500 nurses per month.

Crowded living conditions in war-boom areas require increased efforts to safeguard the health of civilians. Public health nurses are key workers in this program.

The great increase in war industry requires more nurses for plant preventive and first-aid services.

UNITED STATES CADET NURSES

By the distinctive outdoor uniform, bearing the insignia of the United States Public Health Service and of the United States Cadet Nurse Corps, the cadet is identified as being engaged in an activity recognized as vitally important in the war effort.

Unlike those working at many war jobs, the cadet receives full training and standing in a profession which will be permanently useful, both to herself and to society.

Full tuition and maintenance, including the uniform, are furnished the cadet, and in addition she receives a regular monthly stipend which, although too small to attract those interested primarily in monetary return, is yet sufficient so that no girl need be deterred by financial obstacles from seeking a nursing education. Stipends will amount to $15 per month during the first nine months of training, $20 during the next fifteen to twenty-one months, and $30 or more for the six to twelve months remaining before graduation.

The prospective cadet is free to enter the nursing school of her choice, provided only that the school is participating in the program, and that she herself is able to meet the scholastic, personal and physical requirements of that school.

While the cadet is required to agree that after graduation she will continue in essential nursing for the duration of the war, it is to be emphasized that she is not compelled to enter military service. On graduation, she is free to choose among the military services and numerous civilian nursing activities. It is to be noted that Army nursing and many civilian positions are open to married nurses. Whether or not a cadet may marry during her training is dependent entirely on the regulations of the school in which she is enrolled.

JOINING THE UNITED STATES CADET NURSE CORPS

The young woman who is interested in joining the United States Cadet Nurse Corps should inquire from the nursing school of her own choice as to whether it is participating in the program. She must be a high school graduate; other admission requirements vary among individual schools.

It is suggested that it may be recommended to prospective cadets that they obtain catalogs of at least three schools before making a final selection. A booklet entitled "Nursing and How to Prepare for It" will prove helpful to young women and may be obtained free from the National Nursing Council for War Service, 1790 Broadway, New York, N. Y.

Lists of the 1,300 nursing schools in the United States which are accredited by State Boards of Nurse Examiners are also available from the National Nursing Council for War Service. The State Board of Nurse Examiners can supply a list of the schools in each State.

For convenient reference by physicians attention is called to the fact that the annual Hospital Number of the *Journal of the American Medical Association* (the 1943 edition is dated March 27) indicates, in its list of registered hospitals, those having an accredited nursing school.

(*Continued on page 416*)

MEETINGS

Wednesday, November 3

BUSINESS MEETING

Following the business session, JUSTICE BOLITHA J. LAWES, of the District Court of United States for the District of Columbia, will speak on "Medical Witnesses."

Wednesday, November 10

The District of Columbia Tuberculosis Association will sponsor the following program:

"The Role of the Private Physician in the Broad Program for the Control of Tuberculosis in the Community," PAUL P. MCCAIN, M.D., F.A.C.P., Superintendent, North Carolina Sanatorium for the Treatment of Tuberculosis; formerly President of the National Tuberculosis Association.

This paper will be discussed from the broader viewpoint by LIEUTENANT COLONEL ESMOND T. LONG, M.C., U.S.A., Chief of the Medicine Branch in the Office of the Surgeon General of the Army; formerly Director of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis; and Past President of the National Tuberculosis Association. Discussion from the local viewpoint will be led by A. BARKLIE COULTER, M.D., Director of the Bureau for Tuberculosis, District of Columbia Health Department.

Wednesday, November 17

The following program has been arranged under the auspices of the *Washington Chapter of the Fracture Committee of the American College of Surgeons:*

1. "A Treatment of Ununited Fracture of the Femoral Neck," CARL BERG, M.D.
2. "Recent Advances in the Treatment of Fractures," CHARLES L. SCUDDER, M.D., F.A.C.S., Boston, Chairman of the Fracture Committees of the American College of Surgeons.

ON THE DECREASE OF PRACTICING PHYSICIANS IN WASHINGTON, D. C.

A STATISTICAL REPORT OF THE SURVEY CONDUCTED BY THE COMMITTEE ON MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA

ANTONIO CIOCCO AND ISIDORE ALTMAN

Division of Public Health Methods, National Institute of Health,
U. S. Public Health Service

In February 1943, the Committee on Medical Service of the District of Columbia initiated an inquiry among the physicians of the District, the primary purpose of which was to ascertain the willingness of physicians to be listed in panels set up by the Committee. These panels, by listing physicians to be called on in emergencies, would serve to coördinate the efforts of the medical prefession to protect the health of the civilian population in the face of a steady reduction in the number of physicians. The inquiry was conducted by means of questionnaires sent to every physician in Washington. The questionnaire, reproduced in figure 1, covered such items as type of practice, daily patient load, district residence of patients, weekly number and the district residence of persons turned away by the physicians, willingness of specialists to do general practice, and willingness of the physicians to serve on the panels.

To the physicians who failed to reply to the questionnaire sent in February, another was mailed in April. As a result of both efforts, a reply was obtained from 93 per cent of all white private practitioners of the District of Columbia.* The main findings of the present survey are summarized in this report and when possible a comparison is made with the results of a survey of practicing physicians and their patient load made in September 1942.[1,2]

PRIVATE PRACTITIONERS, SEPTEMBER 1942 AND APRIL 1943

In September 1942 a total of 991 private practitioners were enumerated in the District of Columbia. By April 1943 that total was reduced to 910, a net loss of 81 physicians. The changes that took place between the two dates in the age, color, and sex composition of the physicians are indicated in table 1. Calculations from the table show that neither the

COMMITTEE ON MEDICAL SERVICE
for the
DISTRICT OF COLUMBIA

DOCTOR! Do not mislay this form. Mail it to the Committee on Medical Service, 1718 M Street, N. W. not later than APRIL 20, 1943. The Committee counts on YOUR cooperation.

QUESTIONNAIRE

1. Are you in general practice or a specialty? .... If specialty, specify ....
2. What was the daily average number of patients you saw professionally during March 1943?....................
Office visits.................... Home visits.................... Hospital visits....................
Section or sections of Washington where the majority originated (Check) N W...... N.E...... S.W...... S.E......
3. Are you now in a position to meet all demands made upon you for medical service?....................
4. State the number of calls you were unable to accept during the week beginning April 4, 1943 because your regular patients required all of your time....................
Section or sections of Washington in which they originated (Check) N.W..... N.E...... S.W...... S.E......
5. If you are a specialist will you, in this emergency, do general practice?.................... Will you make home calls?.................... Keep evening office hours?.................... If so, state hours you will be in your office ....

6. Washington has been divided into districts (see map on reverse side of this form) and a panel of physicians for each district is being prepared for use of MEDICAL BUREAU. Physicians on the panels will be called upon in emergencies when BUREAU doctors already listed for these calls are not available, or in the event of an epidemic. They will be listed according to the districts in which they practice for day calls and where they reside for night calls. Do you wish to be listed on one of these panels? .... Will you take day calls? .... If so, state district in which your office is located (refer to map on reverse side and indicate district by number).................... Will you take night calls?.................... If so, indicate by number district in which your residence is located (Residents of nearby Virginia and Maryland should so indicate.)....................

7. Remarks....................

Date.................... ....M. D.
Office Telephone .... Residence Telephone ....
Office Address .... Residence ....

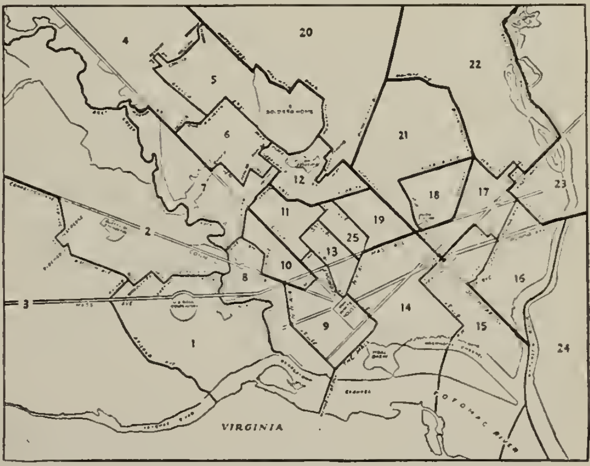

FIG. 1. Questionnaire (front and reverse sides)

sex nor the color composition of the physicians altered in the six months' interval. In both surveys white males made up 79 per cent of the total, Negro males 15 per cent, and females 6 per cent.

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* A similar questionnaire was prepared for the Negro physicians by the Medico-Chirurgical Society. Replies were received from 47 per cent of the physicians but the results have not yet been analyzed.

However, there have been changes in age distribution, particularly among the white male physicians. Since the decrease in the number of physicians has resulted mainly from the recruitment of men for the armed forces, it is expected—and the data clearly show it—that the physicians as a group have aged considerably. In September 1942, 50 per cent of the white male physicians were under 45 years of age; in April 1943, only 43 per cent of the men were below that age.

The expected change in age composition has been accompanied by a shift in the composition of physicians by type of practice. The data of table 2 illustrate this. In September 1942, 39 per cent of the white male physicians were general practitioners; in April, the general practitioners constituted 41 per cent of all the physicians. Therefore, the decrease in physicians has touched the specialists more than the general practitioners.

TABLE 1

Physicians in private practice in the District of Columbia, September 1, 1942 and April 1, 1943

AGE OF PHYSICIANS	WHITE MALES		NEGRO MALES		FEMALES		TOTAL	
	Sept. 1	April 1	Sept. 1	April 1	Sept. 1	April 1	Sept. 1	April 1
Under 35	109	78	63	13		14		105
35–44	282	226		41		21		288
45–64	296	306	86	73		12		391
65 and over	99	105		14		7		126
All ages	786	715	149	141	56	54*	991	910

* Includes 9 Negro physicians. Therefore, the total number of white physicians in practice was 760, the total number of Negro physicians, 150.

TABLE 2

Age and specialty of white male physicians in private practice in the District of Columbia, September 1, 1942 and April 1, 1943

AGE	TOTAL	GENERAL PRACTICE	TOTAL SPECIALISTS	INTERNAL MEDICINE	SURGERY*	GYNECOLOGY AND OBSTETRICS	PEDIATRICS†	EYE, EAR, NOSE AND THROAT†	ALL OTHER
Under 45									
Sept. 1	391	153	238	53	37	42	25	32	49
April 1	304	129	175	46	27	29	19	24	30
45 and over									
Sept. 1	395	155	240	47	39	24	15	51	64
April 1	411	164	247	55	40	26	17	48	61
All ages									
Sept. 1	786	308	478	100	76	66	40	83	113
April 1	715	293	422	101	67	55	36	72	91

* Including orthopedic surgery.

† Including ophthalmology and otorhinolaryngology.

In September 1942, there was one physician per 838 persons in the District of Columbia. At the time the total population of the District was estimated to equal 830,000. If an estimate of 850,000 population for the District can be accepted for April 1943, then during the six months' interval between surveys the number of persons per physician rose to 934. It is well to emphasize that in calculating the ratio of physicians to population for the District of Columbia for comparison with any of the 48 states, due weight must be given to the fact that a substantial portion (15 per cent) of the patient load of the District physicians comes from nearby Virginia and Maryland.

Daily and Weekly Patient Load of Physicians

In April 1943, the patient load of the white male general practitioners was 24 patients per day, and that of the Negro practitioners, 21 patients. On the basis of a 5½-day week, the white male general practitioners would be seeing 132 patients per week; assuming a 6-day week, the average weekly patient load of the white male general practitioners would be 144.

In the survey of September 1942, the average patient load of the white male general practitioners was found to be 115 patients per week. Thus it can be estimated that the reduction of physicians during the interval of six months was accompanied by an increased patient load for the remaining practitioners of from 15 to 25 per cent. In connection with the comparison of the two patient load studies it is well to point out that for the individuals who replied to both surveys there was a high positive correlation (r = .76) between the two patient load values given. This means that on the whole those physicians who reported a high patient load in September reported a high patient load in April, and physicians with low patient loads in September had low patient loads in April.

TABLE 3

Average patient load of white male general practitioners, September 1, 1942 and April 1, 1943

	ALL AGES	UNDER 35	35–44	45–64	65 AND OVER
April 1, 1943:					
Average daily patient load	24	27	27	26	14
Weekly patient load on basis of:					
(A) 5½ day week	132	148	148	143	77
(B) 6 day week	144	162	162	156	84
September 1, 1942:					
(C) Weekly patient load	115	127	135	118	58
Ratio, April 1 to Sept. 1 (× 100):					
(A) ÷ (C)	115	117	110	121	133
(B) ÷ (C)	125	128	120	132	145

The increase in patient load during the interval is characterized by a greater increment in the work of the physicians over 45 years of age. While in the September survey the patient load of the men under 45 was greater than that of the men above that age, in table 3 it is shown that the daily patient load of the men 45–64 years in April was nearly equal to that of the younger men. The patient load of the men under 45 has increased by about 15 to 25 per cent while that of the men over 45 has increased much more—from 20 to 30 per cent in the case of the 45–64 years group, and from 30 to 45 per cent for the oldest age group. It needs to be pointed out, though, that even with this increase the patient load of the oldest group is still small.

Another aspect of the greater patient load now carried by the physicians of Washington, D. C. is that in most cases specialists have on the average as large a patient load as the general practitioners (cf. table 4). This contrasts with the findings of the preceding survey that specialists tend to have a somewhat smaller patient load than general practitioners, and probably reflects the fact that in absolute and relative number more specialists than general practitioners have been withdrawn from the District of Columbia during the six months' interval studied.

TABLE 4

Average daily patient load of white male physicians

	ALL AGES	UNDER 45	45 AND OVER
General practitioners	24	27	22
Specialists:			
Internal medicine	22	21	22
Surgery*	26	28	24
Pediatrics	18	21	16
Gynecology and obstetrics	26	25	27
Eye, ear, nose and throat†	26	25	26
Neurology and psychiatry	12	10	13
Urology	22	24	21
All other‡	30	36	24

* Including orthopedic surgery.

† Including ophthalmology and otorhinolaryngology.

‡ Exclusive of radiology, anesthesia, pathology and industrial medicine.

UNSATISFIED REQUESTS FOR MEDICAL SERVICES

For the first time in any study on the subject, some quantitative information is available about the requests for services that physicians were unable to satisfy. The physicians were asked if during a specified week they had refused calls, and if so how many. From their replies the data shown in table 5 have been prepared. The tabulation reveals that 44 per cent of the physicians refused one or more calls. The average number of calls refused by them was 11. In relation to type of practice, some differences with respect to proportion of physicians refusing calls and to weekly number of calls refused are noted, but they do not reveal any clear pattern. Two points are to be considered with regard to these findings. The first is that no further information is available as to the fate of the persons refused medical services, whether they received the requested services from other physicians or did without the services entirely. The second is that from the explanations added to the replies it was clear that the majority of calls refused were requests for home calls and at night.

In this connection it should be pointed out that the proportion of men who refused calls and the number of calls refused are somewhat higher among the practitioners over 45 than among those younger.

WILLINGNESS OF SPECIALISTS TO DO GENERAL PRACTICE

To prepare for any medical care emergency which might arise during the present war, the Committee on Medical Service for the District of Columbia suggested two positive steps. The first was to recommend that specialists do more general work, and the second was to organize panels to serve as a means of coördinating the work of the physicians so that all sections of the District would be provided with some medical care. The main purpose of the survey was to acquire information on the specialists who would accept the recommendations and on the physicians who would participate in the panels. The numerical data derived from the replies are summarized in tables 6 and 7.

TABLE 5

Average number of calls refused in one week by white physicians

TYPE OF PRACTICE	NUMBER OF PHYSICIANS		PER CENT OF PHYSICIANS REPORTING CALLS REFUSED	AVERAGE NUMBER OF CALLS REFUSED BY ALL PHYSICIANS	AVERAGE NUMBER CALLS BY PHYSICIANS REFUSING CALLS
	Giving information	Reporting calls refused			
All physicians	511	227	44	5	11
Males:					
General practice	213	102	48	5	11
Internal medicine	78	34	44	5	12
Surgery	42	11	26	2	6
Pediatrics	28	16	57	6	10
Gynecology and obstetrics	36	16	44	5	12
Eye, ear, nose and throat	48	21	44	6	14
Neurology and psychiatry	9	5	56	3	6
Urology	12	1	8	*	3
All others†	16	6	38	2	6
Females	29	15	52	3	5

* Less than 0.5.

† Exclusive of radiology, anesthesiology, pathology and industrial medicine.

TABLE 6

White specialists willing to do general practice

SPECIALTY	TOTAL	WILLING TO DO GENERAL PRACTICE	
		Number	Per cent
All specialists	416	131	31
Internal medicine	96	45	47
Surgery*	62	18	29
Pediatrics	39	13	33
Gynecology and obstetrics	56	15	27
Eye, ear, nose and throat†	70	19	27
Neurology and psychiatry	19	3	16
Urology	21	4	19
Radiology, anesthesia, pathology, industrial medicine	19	7	37
All other	34	7	21

* Including orthopedic surgery.

† Including ophthalmology and otorhinolaryngology.

Note: Data based on answers to questionnaire.

Of the total number of white specialists who returned questionnaires, 31 per cent—slightly less than a third—indicated a readiness to do general practice. Variation by type of specialty was marked, the percentage willing to do more generalized work ranging

TABLE 7

White physicians willing to serve on panel

	TOTAL	MALE PHYSICIANS		FEMALE PHYSICIANS
		General practitioners	Specialists	
All physicians	760	293	422	45
Willing to serve on panel:				
Number	338	189	128	21
Per cent	44	65	30	47

Note: Data based on all white physicians in District of Columbia.

from 47 per cent among the internists down to 16 per cent for the psychiatrists and neurologists. There is apparent in the table some correlation between an affirmative answer to the survey question and the closeness of the specialty to general practice.

It should be noted that many of the specialists felt compelled to refuse general practice because their training and their years of specialization had rendered them unprepared for anything else.

The same proportion of specialists—in fact, the same individuals—who were willing to do general practice also expressed a willingness to participate on the proposed panel. In contrast, 71 per cent of the general practitioners (including females) accepted inclusion in the panel. All together, almost one half of the white physicians are willing to serve on the panel. Physical disability, place of residence, and especially the present high patient load were the most frequent reasons which prevented others from acceding to the request that they also serve.

CONCLUSIONS

From the survey made in September 1942, it was concluded there was no acute shortage of physicians in active private practice but that the number of effective physicians was rapidly approaching the lowest safe limit. As of April 1943, no signs of acute shortage have yet appeared although in the six months' interval the number of effective physicians in Washington, D. C. diminished by 81.

One of the reasons that such a decrease has not produced immediate tangible and harmful effects is that the supply of general practitioners has remained relatively untouched since a high proportion of the physicians who left practice are specialists. The previously noted distortion in the distribution of physicians according to specialty has been partially corrected, and the patient load of the specialists, in general, has now been raised to the level of that of the general practitioners. It deserves to be pointed out that as a consequence of the increased patient load and diminution in number of specialists, it is perhaps not to be expected that many of them can undertake to do general work.

Another reason that the demand for medical services has so far been met more or less satisfactorily is that the older physicians, those above military age, have increased at a great rate their patient load. During the interval between surveys, all of the physicians have apparently had to increase their patient load on an average of by 15 to 25 per cent, but the men over 45, particularly those over 65, have augmented their patient load by nearly twice that percentage.

Members who have not already done so are requested to communicate with the Committee on History of the Medical Society, 1718 M Street, N.W., regarding particulars of casualties suffered, decorations or honors and citations received, or foreign or unusual service rendered, while in military service during the first World War.

How much more can the remaining physicians increase their patient load? A definite and categorical answer cannot be given at the moment to this pertinent question. However, from the studies on the patient load of general practitioners it appears that the maximum lies between 125 and 160 patients per week.[3] In April, the weekly patient load of the general practitioners was calculated to be between 132 and 144 patients. Therefore, the patient load of the Washington general practitioners is already within the range of the limits of the maximum.

There can be little doubt that the number of physicians in the District of Columbia is close to the lowest number required to maintain the present status of medical care. Although its exact significance is not immediately apparent, it seems pertinent to point out that already in April, 44 per cent of the physicians reported that they were turning down one or more requests for medical care a week. Positive action to mobilize the available resources so that they can be used more efficiently is warranted; the Committee on Medical Service is well aware of the needs and can be expected to make all efforts to arrive at some satisfactory solution.

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2. Ciocco, A., and Altman, I.: Statistics on patient load of physicians in private practice. J. A. M. A., 1943, 121, 506.
3. Ciocco, A., and Altman, I.: Patient load of physicians in private practice: comparative statistical study of three areas. Pub. Health Rep., 1943, 58, 1329.

On The Home Front

The American College of Physicians has arranged three postgraduate courses for the autumn of 1943. The first course, on Endocrinology, was given at the University of Illinois College of Medicine and the Presbyterian Hospital, Chicago, October 11 to 16. The second course, on Allergy, will be held at the Roosevelt Hospital, New York, October 25 to 30. Special Medicine will be the subject of the third course, scheduled for November 8 to 19 at various Philadelphia institutions. The fee for the first and second course is $20 and for the third course, $40. Those wishing to register should write to the Executive Secretary of the College, E. R. Loveland, 4200 Pine Street, Philadelphia 4, Pa.

The Southern Medical Association will hold its 37th Annual Meeting in Cincinnati, Ohio, November 16, 17 and 18, with headquarters at the Netherland Plaza. Organizations that will meet conjointly with the Southern Medical Association at Cincinnati are the American Therapeutic Society, the American Academy of Pediatrics, Region 2, the American College of Chest Physicians, Southern Chapter, the American Society of Tropical Medicine, National Malaria Society, and the American Public Health Association, Southern Branch.

The Section on Neurology and Psychiatry held its first meeting this fall at the Medical Society's Building, October 7. Dr. Albert E. Marland gave his Chairman's Address on the subject, "Some Medico-Legal Paradoxes."

Officers were elected for the new year as follows:

Dr. Robert H. Groh, *Chairman;* Dr. Robert T. Morse, *Vice Chairman;* Dr. Leonard M. Dub, *Secretary-Treasurer.*

Dr. Cloyd Heck Marvin, President of George Washington University, has announced the promotions of twenty-six members of the faculty staff, following approval by the Board of Trustees. Included in the list of promotions for the School of Medicine are the following members of the Medical Society:

Frank D. Costenbader, to Associate in Ophthalmology
Ronald A. Cox, to Assistant Clinical Professor of Ophthalmology
Addison M. Duval, to Associate in Psychiatry
Russell J. Fields, to Assistant Clinical Professor of Dermatology and Syphilology
E. Leonard Goodman, to Assistant Clinical Professor of Ophthalmology
Edgar D. Griffin, to Associate in Psychiatry
Hayden Kirby-Smith, to Associate in Dermatology and Syphilology

CALENDAR OF MEETINGS

August 6	Committee on Public Health
	Committee on Program
	Section on Pathology and Laboratory Medicine
August 9	Committee on Public Meeting, Annual Scientific Assembly
August 10	Subcommittee on Banquet, Luncheon and Entertainment, A.S.A.
August 16	Subcommittee Chairmen of Committee on Arrangements, A.S.A.
August 19	Subcommittee on Venereal Diseases
August 23	Executive Board
	Committee on Public Health
August 27	Section on Pediatrics
August 28	Section on Pathology and Laboratory Medicine
September 3	Subcommittee on Residents and Interns, District Procurement and Assignment Committee
September 7	Subcommittee on Social Affairs, A.S.A.
September 9	Subcommittee on Attendance, A.S.A.
September 10	Grievance Committee
September 13	Subcommittee on Nutrition Exhibit and Demonstrations, A.S.A.
September 14	Section on Pediatrics
	Committee on Medical Bureau
September 15	Committee on Arrangements, A.S.A.
September 16	Committee on Public Health
September 17	Subcommittee on Scientific and Public Health Exhibits, A.S.A.
September 20	Grievance Committee
September 24	Interprofessional Conference
September 25	Section on Pathology and Laboratory Medicine
September 27	Executive Board
	Committee on Third War Loan Drive

Julius S, Neviaser, to Associate in Surgery
John A. Reed, to Assistant Clinical Professor of Medicine
Samuel A. Silk, to Associate in Psychiatry
Donald H. Stubbs, to Associate in Surgery
Harriet E. Twombley, to Associate in Psychiatry

National Hearing Week will be observed for the seventeenth consecutive year throughout the United States and Canada, October 24 to 30. The theme this year is "The Magic of Hearing." The purpose of this special week is to emphasize the value of hearing and the means of conserving it; the great prevalence of lowered hearing and the means of offsetting ensuing difficulties of communication by lip reading and accepted mechanical devices.

In a letter to Dr. Warren H. Gardner, President of the American Society for the Hard of Hearing, Washington, endorsing National Hearing Week, President Franklin D. Roosevelt stated, "The week of October 24–30, which has been set aside as National, Hearing Week for this year, holds greater significance than any in the past, for in addition to the unfortunate among our civil population, we will have added hundreds of war casualties to that group. I want you to know that constructive steps are being taken by the Army, the Navy, and the Veterans' Administration in the rehabilitation of the hard of hearing following this war."

The George Washington University Medical Society will hold its first meeting Saturday, October 23, at 1335 H Street, N.W. Lt. Comdr. A. M. Hutter, M.C., U.S.N., Chief of the Consultation Service, Naval Medical Center, will give a paper on "Results of Clinical Investigation of Penicillin." General discussion will follow. Dr. Hutter is a member of the Penicillin Team at the Naval Medical Center which controls and supervises all cases treated with penicillin at this Center. His presentation will be based on his experience in the treatment of more than a hundred cases.

The Smith-Reed-Russell Society held its annual banquet at the Mayflower Hotel, October 5. Thirty-four members of the junior and senior classes of George Washington University School of Medicine were presented certificates of membership in the Society, and honorary membership in the Society was conferred upon three faculty members, Colonel Philip W. Huntington, M.C., U.S.A., Dr. Preston A. McLendon, and Dr. Angus M. Griffin. Dr. William C. Johnstone, Dean of the Junior College and Professor of Political Science, spoke on "Political Problems of the Southwest Pacific."

Georgetown, Garfield and Sibley Hospitals have completed arrangements whereby they will receive Federal funds for the training of student nurses in the Cadet Nurse Corps. A total of $126,833 has been allotted to these three hospitals, which will be used in the training of 40 nurses at Georgetown, 86 at Garfield and 65 at Sibley. Providence and Freedmen's Hospitals are already participating in this Federal project for training student nurses.

The New Juvenile Court Clinic opened on October 1. Judge Fay L. Bentley, who was instrumental in obtaining the clinic, hopes that it will prove helpful in coping with the problems of child delinquency. The United States Public Health Service has announced the appointment of **Dr. Stanley Geshell** as the psychiatrist for the clinic. Dr. Geshell, a graduate of the University of Colorado, was transferred here from the U. S. Public Health Service Hospital for narcotic addicts at Lexington, Ky.

Dr. William Thornwall Davis was invited to read a paper before the Asociacion Para Evitar La Ceguera en Mexico (Society for the Prevention of Blindness) in Mexico City, August 17, on the subject of "Amblyopia Ex Anopsia." Since Dr. Davis was unable to deliver the paper personally, the Department of Ophthalmology of George Washington University School of Medicine made a moving picture sound film in Spanish of the paper, which was mailed to Mexico City and shown before the association. Dr. Davis read the introductory paragraphs of the paper. Dr. Castillo Najera, graduate of George Washington University School of Medicine, Class of 1942, read the main text before the microphone for Dr. Davis.

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, was appointed Associate Editor of the MEDICAL ANNALS at a meeting of the Executive Board, September 27.

Dr. Harry H. Donnally has resigned his appointment as Professor and Executive Officer in the

Department of Pediatrics of George Washington University School of Medicine and is now Professor Emeritus of the Department. **Dr. Preston A. McLendon** succeeds him as Executive Officer of the Department of Pediatrics. He was formerly Clinical Professor of Pediatrics.

Dr. Wallace M. Yater was guest speaker at the Annual Convention of the Pennsylvania State Medical Society in Philadelphia, October 5, 6 and 7. The subject of his address was "Selection and Interpretation of Laboratory Examinations."

The Navy Cross was awarded posthumously to **Lieutenant Henry R. Ringness, M.C., U.S.N.R.,** who lost his life "in performance of duty and service to his country." Secretary of the Navy Frank Knox stated that the award was given "for extraordinary heroism as flight surgeon of a Marine aircraft group during action against enemy Japanese forces on Guadalcanal on the night of October 13–14, 1942."

Mr. Walter E. Perry, Vice President of the Bank of Bethesda, will sponsor a room at the Bethesda Suburban Hospital in memory of his brother, the late **Dr. Benjamin C. Perry,** an Associate Member of the Medical Society, who died recently. Dr. Perry was one of the first physicians to practice medicine in Bethesda.

Dr. Emil J. C. Hildenbrand, Director of Physical Therapy at Garfield Hospital and Associate Professor of Clinical Surgery at Georgetown University School of Medicine, gave a course of instruction on "Peripheral Vascular Diseases," September 8, during the Annual Convention of the American Congress of Physical Therapy at the Palmer House, Chicago.

Dr. Alexander Simon, Senior Medical Officer at St. Elizabeths Hospital for the past twelve years and Associate Professor of Neurology at George Washington University School of Medicine, has accepted a position as Assistant Medical Director of the Langley Porter Clinic of the University of California. He will reside in San Francisco.

Dr. Theodore G. Klumpp, President of the **Winthrop Chemical Company** and formerly Chief of the Drug Division of the U. S. Food and Drug Administration, has been elected a member of the Academia de Ciencias Medicas, Fisicas y Naturales de La Habana Cuba. Presentation of the Academy's medal will take place at a future date in Havana.

Dr. W. Marion Falls, former President of the District of Columbia Dental Society, was entertained October 4 at a dinner at the Willard Hotel previous to his entry into the Dental Corps of the U. S. Navy.

BOOK REVIEW

Kaiser Wakes the Doctors. Paul de Kruif. Pp. 158. Price, $2.00. New York: Harcourt, 1943.

In this new book Paul de Kruif glorifies Henry Kaiser for his vision in attempting to provide "Mayo Clinics for the common man." He gives much of the credit for the practical realization of this vision to Dr. Sidney Garfield, who successfully organized prepayment medical care under one roof out in the California desert for 5,000 aqueduct project workers, and later two other desert hospitals; then similarly for the Kaiser father and sons at Grand Coulee while that great dam project was under way, and latterly at the Richmond, California, Kaiser shipyards for 60,000 shipbuilders. De Kruif's fanatical account of these achievements has all the intensity of feeling of a negro spiritual. It would seem that the best interests of reaching the truth about medical economics would be better served if all those on both sides would be less vehement.

Toward the end of the book when the author quotes Mr. Kaiser himself more light is shed on the Kaiser plan. On pages 139 and 140, in telling of a talk Mr. Kaiser gave before the Alameda County, California doctors, the Kaiser plan is described as follows: "In his [Kaiser's] vision it was first of all explicit that the doctors must not be run by bureaucrats from Washington. They themselves must control their own medical science. There would be no invasion of their private practices among people who could pay. . . . At the shipyards . . . the best modern medical care was possible . . . [because] . . modern facilities were built round teams of doctors.

"The workers—by their voluntary weekly 50¢ pieces not only paid for their care, but built those facilities themselves. That was the big news—you don't have to get your facilities by begging them from the rich; you don't have to get them by government handout.

" 'We can show industry it can render this service without being responsible for the investment. This health plan's not an item of profit or loss. . . . But industry must be responsible for managing . . . . ' "

" 'But you, the doctors, have got to personnel it. You're the only ones who know how to staff it. You've got to set up the scientific standards, hold every doctor up to them. You'll have complete control of your personnel.' "

That seems to sum up the gist of Henry Kaiser's ideas. Actually what is responsible for the amazing financial success of these enterprises has been the concentration of income from both the industrial compensation insurance and the health plan into one common fund. The backers of the plan believe though that with the help of the profits from these industrial projects, bank loans, and a government "medical RFC loan agency," these group projects can be spread to all localities, even rural areas.

This book presents a stirring picture of not only what is being done to provide all the facilities of modern medical science for the common man, but also the great future possibility for medical research under this system and for a healthier, happier human race.

It would be interesting to see at first hand the results of the Kaiser-Garfield coalition, or at least to hear about it from other observers, perhaps better qualified and certainly less prone to overstatement. In spite of its faults the book serves the purpose of stirring men's minds and souls to achieve greater things, and of stirring physicians, let us hope, into open-minded willingness to coöperate with honest experiments.

M. B. Y.

WILLIAM PINKNEY REEVES, M.D.

(1871–1943)

Dr. William Pinkney Reeves, well known physician and Life Member of the Medical Society of the District of Columbia, died September 10, 1943, at his residence in the Stoneleigh Court Apartments, following a brief illness.

Dr. Reeves was born in Chaptico, Maryland, February 6, 1871, where his father, Dr. John R. T. Reeves, had been a physician since the Civil War. After graduating from Charlotte Hall Military Academy in 1890, he taught school in Charles and Prince Georges Counties, Maryland. Deciding upon a medical career, he entered Georgetown University and received his medical degree in 1899. He was appointed resident physician at the old Casualty Hospital when it was located on Delaware Avenue, the present site of the Senate Office Building, and began private practice in 1901. He was a practicing physician in the District of Columbia for more than forty years.

Dr. Reeves became an Active Member of the Medical Association of the District of Columbia in 1901 and of the Medical Society in 1902, and a Life Member of the Society, January 1, 1942. He was a Fellow of the American Medical Association and a member of the Southern Medical Association, St. Alban's Church, and the Army-Navy Club.

Dr. Reeves never married. He is survived by two brothers, George R. Reeves of Arlington, Va., and John R. T. Reeves of Chicago, and a sister, Mrs. Horton Smith of Baltimore.

JOHN HENRY McCORMICK, M.D.

(1870–1943)

Dr. John Henry McCormick, a Life Member of the Medical Society of the District of Columbia, died September 15, 1943, at his home in Mobile, Alabama.

Dr. McCormick was born in Washington, D. C., March 25, 1870. He graduated in medicine from National University (which later was absorbed by George Washington University) in 1891 and began the practice of medicine in the District of Columbia the same year. During 1892 and 1893 he practiced in Montgomery County and Baltimore, Maryland. After continuing his work in Washington for many years, he moved to Mobile, Alabama, where he later retired from active practice.

He was an Active Member of both the Medical Association and the Medical Society of the District of Columbia, dating his membership from 1891 and 1903, respectively. He became a Life Member of the Society, January 1, 1934.

Surviving are his wife, Mrs. Aimee S. McCormick; a son, Paul S. McCormick; two daughters, Mrs. J. M. Scott and Mrs. Aimee King; and two sisters, Mrs. J. B. Eckhardt and Mrs. Murray Hackett.

LYMAN BROOKE TIBBETS, M.D.

(1894–1943)

Dr. Lyman Brooke Tibbets, well known otolaryngologist, died suddenly at Sibley Memorial Hospital, September 19. He had maintained his office at 1726 Eye Street, N.W.

Dr. Tibbets was born March 3, 1894, in Washington, D. C., the son of the late Frank J. and Lillie Gray Tibbets. He received the degree of both Doctor of Pharmacy and Doctor of Medicine from George Washington University, the former in 1915 and the latter in 1921.

After practicing medicine in the District of Columbia from 1921 to 1929, Dr. Tibbets went to Michigan for two years' postgraduate study in otolaryngology at the Detroit Eye, Ear, Nose and Throat Hospital and Battle Creek Sanitarium. Returning to Washington in 1931, he specialized in this field until his death.

Dr. Tibbets held the appointments of Clinical Instructor in Otorhinolaryngology at George Washington University School of Medicine and Associate in Otorhinolaryngology at the University Hospital. He was on the staff of Sibley Memorial, Episcopal Eye, Ear and Throat, and Gallinger Hospitals. He was also a diplomate of the American Board of Otolaryngology.

Dr. Tibbets was elected an Active Member of the Medical Society in 1923, transferring to Associate Membership the two years he was away from Washington. He resumed Active status in 1931 and took an active part in the Society's activities. He was a Fellow of the American Medical Association and a member of the Washington Medical and Surgical Society.

Surviving are his wife, Mrs. Hope Braithwaite Tibbets, and two children, John William and Mary Alice Tibbets, residing at their home at 6520 Barnaby Street, N.W.

FRANCIS GEORGE SPEIDEL, M.D.

(1891–1943)

Dr. Frances George Speidel, an Active Member of the Medical Society of the District of Columbia, died August 30, 1943, while visiting friends in Richmond, Virginia. He had been in ill health for several years.

Dr. Speidel was born in Matamoras, Pennsylvania, November 10, 1891. He came to Washington during early childhood and attended Central High School. After graduating from George Washington University School of Medicine, he joined the United States Navy, serving as medical officer from 1917 to 1922. During the first World War he served on the U. S. S. Wyoming with the Sixth Battle Squadron. He was appointed to the faculty of George Washington University School of Medicine in 1923 with the title of Clinical Instructor in Anesthesia.

Dr. Speidel was elected to Active Membership in the Medical Society of the District of Columbia in 1923. He was also a Fellow of the American Medical Association and a member of the Costello Post of the American Legion.

He had considerable artistic ability. Many friends will remember his exhibit of cartoons which was part of the Doctors' Hobby Show during the 1940 Annual Scientific Assembly. Several years ago a number of his cartoons were reproduced in the *Medical Annals*.

Surviving Dr. Speidel are his wife, Mrs. Winifred Speidel, who resides at their home at 4838 Sixteenth Street, N.W.; five children, Dorothy J., Thomas F., Muriel E., Robert E. and Frances W. Speidel, all of Washington; his parents, Mr. and Mrs. George Speidel of Coronado Beach, Florida; and three brothers, Dr. Carl C. Speidel of University, Va., Fred Speidel of Rockville, Md., and George Speidel of Washington.

(*Continued from page 406*)

Articles on the United States Cadet Nurse Corps are appearing currently in medical, nursing and hospital journals.[1] Local nursing schools, the State Leagues of Nursing Education, or the Division of Nurse Education, U. S. Public Health Service of the Federal Security Agency, Washington 25, D. C., can supply additional information.

Physicians are urged to utilize every means to stimulate interest among young women in this new opportunity to aid in meeting an urgent war need.

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[1] Parran, T.: J. A. M. A., 1943, 122, 752.

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THE MENINGOCOCCAL CARRIER STATE*†

EMANUEL B. SCHOENBACH, M.D.

Captain, Medical Corps, United States Army; Member of the Meningococcal Meningitis Commission, Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army

CEREBROSPINAL fever has long been known to manifest itself in two phases: the endemic form, or the occasional isolated case appearing in the general population; and the epidemic or multiple infection type, which appears during periods of abnormal crowding, as in institutions, or with unusual population and environmental changes. During the past year a rise in the case incidence of meningococcal meningitis to over 10 times the median for the 5-year period 1937–41 has been observed. Although this may not be termed an epidemic, the almost uniform increase in the number of cases throughout the United States during a period of vast military and industrial mobilization has aroused great interest among those concerned with the prevention and investigation of epidemic disease.

In January 1941 the Secretary of War, on the recommendation of the Surgeon General, established a Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army. Several specialist commissions collaborate with the Preventive Medicine Division of the Army, through the Board, to cope with just such problems. Among the commissions thus created was the Meningococcal Meningitis Commission, charged with the responsibility to investigate those factors of meningococcal infection which lead to the dissemination of the organism and clinical disease. Knowledge of the above factors is paramount before effective or organized procedures for control can be formulated.

That there exist apparently healthy meningococcal carriers who may or may not have been in close association with meningitis cases has long been known. It was not until the exhaustive reports of the experiences during World War I of a group of English investigators that the subdivision of meningococcal carrier strains as to type and their association with types isolated from meningitis cases was clearly shown.

In so short a presentation on the subject of meningitis, it would be most enlightening to focus attention on the carrier phase of the problem rather than skim superficially through a maze of controversial or frequently reiterated topics. The exact status of the meningococcal carrier has been the subject of much discussion. Glover (1919) concluded that a rise in the "non-contact" carrier rate to over 20 per cent forecast an imminent outbreak of meningitis. Other investigators in intervening years have disagreed with Glover's statements, based on observations made chiefly during periods of endemic prevalence. However, a high carrier rate was usually found in association with an increased incidence of meningitis, although the converse, a low carrier rate with increased prevalence, had not often been found.

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* This study was conducted by the Meningococcal Meningitis Commission (Dr. John J. Phair, Director), Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army, Office of the Surgeon General, Preventive Medicine Division. The results included are but a preliminary report; a more extensive analysis is being prepared.

† Read at the Fifteenth Annual Scientific Assembly of the Society, October 1, 1943.

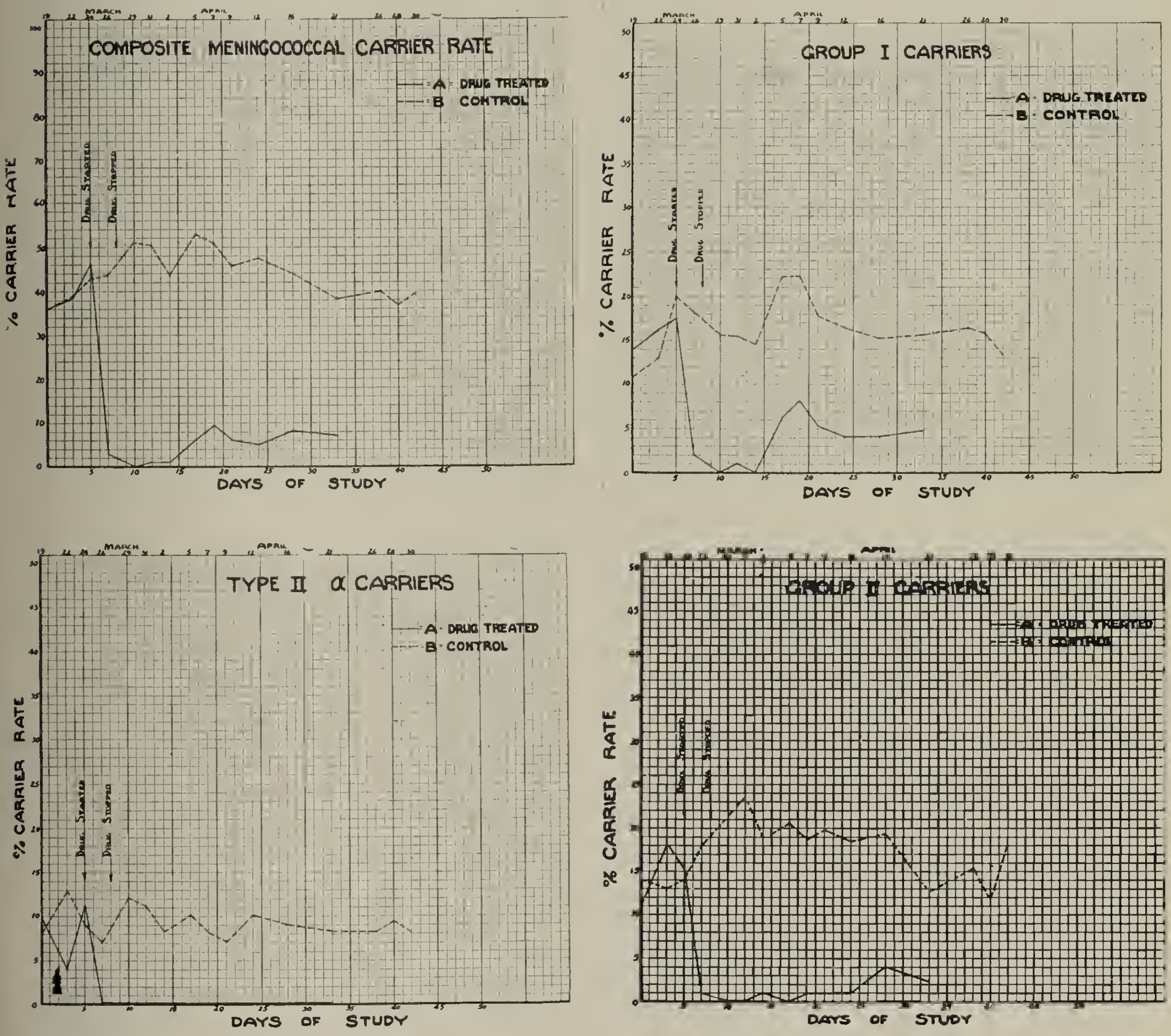
The study of the meningococcal carrier state that has recently been completed by the Meningococcal Meningitis Commission may explain many of the above mentioned discrepancies. The object of this survey was to investigate the nature of the carrier state in respect to duration, intermittency, frequency and prevailing types of meningococci. In addition, the effects of the sulfonamide drugs were observed, with the expectation that an adequate means of controlling the carrier, and thus possibly the incidence of clinical meningitis, might result.

For this purpose a group of men stationed at a nearby Army camp were selected. They formed a relatively stable unit which had not been materially affected by large number of new arrivals or departures. No cases of meningitis had occurred among these men, minimizing the possibility of "contact carriers" being included in the survey. The men, in their duties, formed a suitable cross-section of the camp as a whole. Some worked as clerks in offices, others were in the field as sanitary inspectors and engineers, while still others worked on the medical, surgical and genitourinary ward services, not necessarily exposed to infectious diseases. An anamnestic history of this group was made and all relevant data assembled, to insure the reliability of the cultural results. Cultures of the men were made 3 times weekly. They were obtained by swabbing the nasopharynx of each man and then inoculating a 5 per cent rabbit blood agar plate with the bent wire swab. The type of meningococcus carried could then be determined, after further streaking of the plate, appropriate incubation, selection of colonies for subculture and type specific agglutination. Only Group I, Type II alpha, and Group II meningococci were recorded. Experience gained from the examination of over 1,500 case strains had revealed the following distribution of meningococci: Group I, 91.6 per cent; Type II alpha, 5.6 per cent; and Group II, 1.6 per cent. Thus, epidemiologically these were the only types that were of importance for the present study. So-called polyvalent and nontypable meningococci were recorded but are not included in this report.

Two hundred men were originally assigned to the study. One hundred men were cultured 3 times a week for a period of 10 weeks. They served as a control series and also for investigation of the dynamics of the carrier state. The remaining 100 men were cultured for 1 week, and then 6 grams of sulfadiazine was administered orally over a period of 3 days. Cultures were made regularly during and for 3 weeks after this course of the drug. Then 110 new men were assigned, and those who had been treated were released. The original 100 men, who had been serving as controls, were retained. The new group was subdivided at random, and after a series of 4 cultures to determine a norm a single dose of 1 and 2 grams of sulfadiazine was given to each subgroup, respectively. Cultures were continued for 3 weeks after the sulfonamide had been given. Blood sulfadiazine levels were determined in each of the groups.

The results obtained among the control group were most unusual. The average composite carrier percentage on each occasion varied from 43 to 55 per cent except for a period of 10 days, when it fell to 22 to 25 per cent. This fall followed a week of unusually warm, bright sunny days unmarred by even cloudiness. The subsequent rise followed the onset of rain and inclement weather. The causal relationship is difficult to demonstrate, but it does confirm the experience of Flack (1916), who also noted the rapid disappearance of positive cultures among carriers following periods of "fine weather."

The average carrier percentage at each culture was made up of individuals who were not necessarily the same men. Of those individuals in the control group, 91 per cent were carriers at some time during the 10-week period. The average carrier rate for the period of study was 41.0 per cent, of which Group I accounted for 14.8 per cent; Type II alpha, 9.5 per cent; and Group II, 16.2 per cent. All cases that had occurred in this area had been associated with the Group I meningococcus.



FIGS. 1–4 (numbered from left to right). Comparative carrier percentages of control and drug-treated groups.

Further analysis of the carriers found in this control series revealed that 20 per cent of the men were found to harbor Group I and Group II meningococci; 11.1 per cent carried Group I and Type II alpha; and 15 per cent carried both Group II and Type II alpha. From the amazing number of 9.1 per cent of the men, all 3 types of meningococci (Group I, Type II alpha and Group

II) were isolated. Each man was found to carry the meningococcus for an average of 11 culture periods, or 4 weeks.

The oral administration of sulfadiazine caused a rapid and dramatic fall in the carrier rate (figs. 1–4). The group that received 6 grams of sulfadidazine for a 3-day period and the group that received a single 2-gram dose yielded carrier rates that approached zero levels. This reduction was still apparent as long as 3 weeks after the drug had been given. Those who had received a single gram of sulfadiazine also demonstrated a marked fall in the carrier rate, which rapidly began to rise again approximately 1 week later. The number of men (69 per cent) in this latter group who were found to carry the same type of meningococcus both before and after drug therapy also favored the impression that 1 gram of the sulfonamide suppressed the organism in the nasopharynx but was insufficient to eradicate the infection.

The blood level of drug attained in the group that received 2 grams of sulfadiazine per day was 3.6 mg. per cent on the third day, when 4 grams had been ingested. Four hours after the 1 and 2 gram doses of sulfadiazine, average blood levels of 2.9 mg. per cent and 4.4 mg. per cent were obtained. No reactions were experienced either subjectively, or as determined by physical inspection and hematologic study, with the dosage of drug employed. The sulfadiazine was well tolerated, and all the men continued with their regularly assigned tasks.

The data obtained in this study are being carefully analyzed. The carrier state among the control "non-contact" group was apparently one of dynamic equilibrium. The entire group, rather than the individual carrier, was the important unit. The lack of success attendant upon segregation or therapy of carriers as revealed by "spot" surveys is apparent. Those found positive on any one culture form only a small segment of the actual number present in a group. On each culture series approximately 40 per cent type specific meningococcal carriers were found, yet 91 per cent of the men were positive for meningococci during the short 10-week period of this study.

The administration of sulfadiazine in remarkably small dosage can be employed effectively to reduce the carrier percentage to insignificant levels. The administrative procedure for the large scale prophylactic exhibition of sulfadiazine has not been fully formulated, but it shall certainly be used in the near future.

The post-sulfonamide period may also be employed to assess the various factors that enter into the development of the carrier percentage and the incidence of overt infection. Should a group be made carrier-free with chemotherapy, the subsequent rise in carrier rate (rate of transfer) following the controlled introduction of carriers, crowding, different types of ventilation, etc., may be accurately determined. When amplified by studies on the virulence of meningococci and the immunologic responses of the host, now in progress, a far more complete and integrated pattern of the pathogenesis and dissemination of cerebrospinal fever may be expected. The necessary measures for its prevention can then be rationally and successfully employed.

N.B.: I should like to express my appreciation to Brigadier General James C. Simmons, M.C., A.U.S., Colonel Stanhope Bayne-Jones, M.C., A.U.S., of the Preventive Medicine Division, Office of the Surgeon General, and to Colonel Harry H. Towler, Post Surgeon, Fort George G. Meade, and his staff for their generous assistance and coöperation in this study.

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MALARIA—ITS CONTROL AND TREATMENT*

OMAR J. BROWN, M.D.
Commander, Medical Corps, United States Navy
ELMER M. BINGHAM, M.D.
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UNTIL the effects of malaria on our troops suddenly focused our attention on this disease, with few exceptions it was regarded with considerable indifference by the people of this country, both lay and professional alike. But the reasons for this indifference are not hard to understand. Although malaria is more or less world-wide in its distribution, it shows considerable variation in its endemicity. The United States fortunately lies in an area of relatively low endemicity and thus has been spared the misfortune of severe epidemics. Unless the disease is present in epidemic proportions, for the most part it is not spectacular and the havoc caused by it is insidious in character. Until recently, we have been isolated from epidemic areas.

The importance of any disease may be judged by its prevalence, its duration as an illness, its death rate, and the disabling effects of its sequelae. The common cold has a wide distribution but the duration of illness is short, the death rate practically nil, and disabling sequelae are rare. Epidemic meningitis is a disease with low incidence but a relatively high death rate prior to present therapy. Tuberculosis occurs in relatively few persons, yet its duration is long, its cure difficult, and invalidism frequent. A few diseases combine high incidence and a high death rate or a high rate of invalidism. The most important of these is malaria. Osler has said that, by those who know the most about disease, malaria would probably be voted the greatest single destroyer of the human race.

We have no method by which we can accurately determine the amount of malaria normally present in the world. Before the onset of the present war, the health organization of the League of Nations estimated that more than 17,000,000 persons were treated for this disease each year in the 65 reporting countries. Yet this represents only a fraction of the world cases. In India alone it is estimated that there are 100,000,000 cases annually, only 1 in 10 of which receive treatment. The unreported cases in Africa probably run into the millions. In Central and South America malaria is a cause of high mortality. Even here in the United States we have no accurate figures as to the amount of malaria present. It has been estimated that there are 1,000,000 cases resulting in 5,000 deaths annually. Although the disease is now reportable, the reports are frequently inaccurate and we may find that more persons died from malaria than the total number of cases reported. Recently 1 county in North Carolina reported only 5 cases of malaria over a 5-year period; yet during the same time certificates gave malaria as the cause of death in 8 cases. Thus we see that, on the basis of reports, in a civilized and progressive country, in an area of low malaria endemicity, we are dealing with a disease which is 160 per cent fatal.

Malaria has been a determining factor in military campaigns repeatedly, but, in spite of the lessons available in history, each generation must learn for itself. In 1809 during the Napoleonic Wars, the British made a landing in Flanders with 70,000 troops and had their forces decimated by this disease. Within three weeks of the original landing, 3,000 cases of malaria appeared and the epidemic continued until, at the end of two months, 30,000 cases had developed and 3,000 to 4,000 deaths had occurred. The campaign was terminated by retreat with only 248 battle casualties.

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* Presented at the Fifteenth Annual Scientific Assembly of the Society, October 2, 1943.

Again in World War I, the British and French suffered tremendous casualties from malaria in Macedonia. From 1916 to 1918 they had approximately 200,000 cases. In the fall of 1916 the French could put in the line only 20,000 men out of a force six times as large, and General Sarrail had to report his army immobilized in the hospital. At the same time the British had 30,000 men down with malaria and during the following year, 1917, 70,000 contracted the infection. By removing 25,000 of the worst and most chronic cases from the area they perhaps escaped further disaster in 1918. Fortunately malaria does not discriminate between armies and the German and Austrian forces were also immobilized.

In the present war both the British and Axis forces have found malaria a constant companion in the African theatre; and we are told that during the abortive Assam-Burma campaign, 83,000 British and Indian troops were admitted to the sick list with malaria. The effects of this disease on our own troops has also been recently demonstrated. Associated Press dispatches tell us that at the time of the surrender of Bataan, of 36,000 American and Filipino troops on the peninsula, 20,000 were in bed with malaria or dysentery, 6,000 were required to care for the sick, and only 10,000 were in the line. Disease, not lack of manpower, food or ammunition, was responsible for this defeat. In the South Pacific, over 50 per cent of our land-based troops have contracted malaria. With the Japanese now controlling 95 per cent of the world's quinine supply, our operations in this area could well have ended disastrously had we not had an effective synthetic, anti-malarial drug. But since the Japanese troops are equally as susceptible to this infection as our own, by cutting the enemies' supply line, it is not improbable that General MacArthur has obtained, in the anopheline mosquito, an ally equal to many well equipped army divisions. This does not necessarily improve our own situation, and without strenuous efforts in malaria control we may duplicate the experience of past military campaigns.

The status of malaria in any area is delicately balanced by nature although influenced by many secondary factors. Its continued existence and spread depend essentially upon the presence of gametocyte carriers, an efficient vector in adequate numbers, and nonimmune or susceptible people available to the mosquito. Anything which will break the chain of transmission—carrier to mosquito to nonimmune—will check malaria. Since the plasmodia and their vector, the anopheline mosquito, are vulnerable to attack at many points in their complicated life cycles, the complete control, even eradication, of malaria has been prophesied. But thus far the attempts to quarantine man from the vector, to destroy or curb the larval and adult development of the malaria-carrying mosquito, and to prevent or cure the disease in man by chemical agents have not, singly or in combination, succeeded in removing malaria as a world problem. According to Hackett, "The simplicity of the theory of malaria control is surpassed only by the difficulties involved in its application."

In spite of these difficulties considerable progress has been made in malaria control in some countries, and the question might well be asked why malaria control has not been more successful among troops. During peacetime, control programs can be planned and orderly pursued. The only limiting factor is the amount of money that a community is willing to spend. In military forces, when cost is not a limiting factor, all activity seems to encourage the transmission and extension of malaria. There may be a non-malaria season, but the military campaign may not be able to delay until it arrives. In modern warfare there is a constant, and often urgent, movement of troops which for reasons of secrecy is usually carried out at night. This is the very time when the anopheline mosquito is on the wing. During these movements, protection is difficult, and frequently the time required for the operation is prolonged. Men may escape while moving, but during delays and rests they are easy targets for the mosquito.

The properly selected camp site will avoid the breeding place of anopheline mosquitoes. This is frequently impossible in military operation. A water supply for the force and a mosquito breeding area are frequently identical. The command must decide how far water is to be carried to avoid a potential malaria hazard. Modern warfare calls for dispersal of troops over wide areas for protection from air raids. This increases the difficulties and area of larval control several times. During the combat phase and the period immediately following there is a pressing military need for all men available. Not until sickness within the command indicates its military importance do unit commanders free men for malaria control work. Natives are frequently employed to relieve a labor shortage; usually they are infected with malaria and frequently serve as the seedbed for infecting an organization free of the disease.

To these difficulties must be added the shortage of supplies and equipment, such as larvicides, spray guns, screening and machines, resulting from unprecedented demands by the armed forces as well as transportation difficulties and shortages. Malaria control must take its proper place along with the problems of ammunition, food and other combat supplies. A man in bed with malaria is obviously of no value to his battery, but neither is the gun of any value if the ammunition was left behind to make room for malaria control supplies to keep the crew on its feet. It is apparent that any unit commander has a problem of first magnitude in the effort to control malaria.

All phases of the military campaign present problems peculiar to each part, but something can be done in each. For troops in actual combat there is the least protection. The use of insect repellents and protective clothing will prevent the mosquitoes from biting. But the man may discard his head net as obscuring his vision and his gloves in order to shoot better; and he may lose his shirt, and he may have no repellent. Suppressive drugs are given to supplement other protective measures and to keep the man on his feet while he is most needed. When not in actual combat, bed nets and insecticide sprays are available. Here again a break in control might easily occur because rarely will he stop to remove a bed net from his bunk and carry it to a fox-hole during a night raid. When removed from the area of actual combat more effective control measures can be applied. A choice of camp site may be possible and quarters may be screened, although the screening may subsequently be damaged. Here there is an opportunity for control measures directed toward the mosquito larva by either temporary or permanent means. Thus, the nearer the front, the more the troops must depend upon individual protective measures; the further back, the more they can rely on unit efforts. Individual measures are not easily controlled and malaria discipline becomes of increasing importance.

Malaria control on military reservations in this country has made considerable progress in the past two years. If large numbers of men are concentrated in camps or stations where potential malaria exists, the possibility of the disease developing in epidemic proportions must be constantly borne in mind. This possibility is increased by men returning to some of these stations with malaria, a certain percentage remaining carriers. With control of the mosquito vector and screening of quarters on the reservation the spread of malaria in the military area by returning men will be minimal. Malaria may be introduced into uncontrolled areas which will be visited by men on leave or upon discharge. The armed forces have a responsibility to the communities from which these men come. Although there is no intention of discharging potential cases and carriers of malaria from the service, some men will develop malaria after their release because of the recurrent character of the disease. A constant guard must be maintained to avoid the development of more malaria in this country. In spite of all precautions malaria may appear in communities that have been free from it for a long time. The extent to which these cases occur will depend upon a full knowledge of malaria transmission and the intelligent application of malaria control.

In current experience the recommended treatment for malaria has been modified several times. There is a story told of a person who wrote to Dr. Trudeau for the latest specific in the treatment of tuberculosis. Trudeau sent the patient a bottle of medicine with directions to "take it quickly while it is still a cure." It is expected that the present recommended treatment for malaria will still be changed. In clinical therapy quinine is generally accepted throughout the world. Its use has been modified from time to time. Treatment has shifted from the short course to the long course and back again. The recommended dosage has varied. Present interest in quinine has been curtailed by the Japanese, but the results of therapy with it have not been too satisfactory. It will control the clinical attack but may not cure.

Even before our source of quinine was removed experimental work had been well started on synthetic drugs. The most satisfactory to date is atabrine. We believe it is equal to quinine in all ways. As used so far, it will produce all the effects of quinine except ringing in the ears. Past experience has shown that we did not know how to use the drug to the greatest advantage. Current experience suggests that further progress may be expected. Given in the usual dosage the clinical response was delayed. This led to the recommendation of combining quinine with atabrine for the first few days. The present administration is comparable to sulfonamide therapy: a high initial dose of atabrine to build up a high blood concentration followed by a maintenance dose on succeeding days. Prolonged courses of therapy do not appear to be justified. The safety of the drug in present dosage has been well established. Sulfonamides have been tried. They offer some promise but are not the answer. Penicillin has been suggested.

Atabrine has been found to be better than quinine for suppressive treatment. It may be noticed that suppression was given a minor role in control measures for men in combat. Since quinine and atabrine do not prevent infection, they are recommended only where other control measures may be inadequate. Suppressive treatment is an emergency measure, should be employed as such, and discontinued as soon as possible. World experience has shown that a pill from a bottle will not control malaria.

Plasmochin is another synthetic drug with past popularity. It was formerly recommended for two reasons: There was a known specific action on the gametocytes of falciparum malaria, a parasitic form not affected by other antimalarial drugs; there were authoritative reports that its use would reduce the relapse rate and result in more permanent cures. The latter possibility had a marked appeal to the medical officers, but the expected results have not been obtained. Before the physician employs plasmochin for its gametocyte effect and to protect the community he should realize all phases of the problem. Toxic reactions have been seen frequently. With adequate therapy directed toward younger forms of the parasite, the production of gametocytes can be controlled. Where there is continuous and uninterrupted transmission of malaria, drug control is least satisfactory. Where malaria transmission is interrupted, the control of gametocyte carriers by plasmochin may be of benefit. Naval experience has shown that falciparum malaria is not a part of the problem outside of

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PANDEMIC INFLUENZA*

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IT IS not hard to understand that one of the most severe threats to our health at the present juncture would be a pandemic of influenza such as that which began some sixteen months after our entry into the last war. Fortunately more than that length of time has elapsed since Pearl Harbor and there is no sign on the horizon of such a catastrophe. Furthermore, if a pandemic did come and the pattern of the last were followed, the soldier at the front would not suffer as severely as the civilian at home, in spite of young adulthood being the age most heavily attacked.

We may well ask ourselves how much more knowledge of the disease we have now than we had then, to aid us in our defense against it. To begin with, the last pandemic started with a fairly general agreement that the cause of influenza was a bacillus then called the influenza bacillus of Pfeiffer, discovered near the close of the last great pandemic in 1892. Much time was lost by trailing on that false scent. Vaccines made from the Pfeiffer bacillus were freely used, and while the organism was found in the secretions and even at autopsy of a large number of patients, in some regions it was relatively scarce compared to other bacteria, and no one type of the organism preponderated even in one locality. One of the most convincing proofs that the influenza bacillus was not the cause of pandemic influenza was the fact that the form of disease unquestionably due to this microorganism, Pfeiffer bacillus meningitis, did not increase at all during the pandemic, in fact, became less frequent.[1]

Smith, Andrewes and Laidlaw[2] in 1933 and Thomas Francis[3] in the following year isolated closely similar viruses from two different epidemics which clinically corresponded to what is called influenza outside of the pandemic years. Whether a virus of this group now called "Influenza A virus" or a similar virus is the cause of pandemic influenza we do not know. It is at least a fair presumption that the cause of pandemic influenza is a virus, and one similar to Influenza A virus. The latter causes influenza-like disease in ferrets and mice, and can be cultivated in the amniotic fluid of the developing chick embryo. Francis[4] and independently Magill[5] have discovered another virus, called Influenza B virus, in epidemics, and sometimes intermingled with Influenza A virus, in the same epidemic. This Influenza B virus is immunologically quite distinct from Influenza A virus. The different types and subtypes into which the hundreds of the thus far isolated strains of Influenza A virus could be divided show variations among themselves when cross neutralization tests are made with ferret serums, and great changes in pathogenicity and adaptability can be made in most strains by repeated passage through animals. One peculiarity about this experimental disease is that the virus is never present in the blood stream or generalized through the organs of the animal. It seems to be nearly exclusively an infection of the respiratory system. Similarly ferrets and mice are not successfully inoculated subcutaneously but only by instilling virus suspensions intranasally. Dr. Stuart-Harris in England contracted the disease when an inoculated ferret sneezed in his face.

One interesting bit of technic discovered by Dr. Hirst[6] is the fact that suspensions of this virus will agglutinate the red blood cells of the fowl or even those of the guinea pig. Furthermore, a serum containing antibodies against that particular influenza virus when mixed with the virus will prevent the agglutination of the fowl's cells. Thus, viruses and serums can be titrated out and classified with comparative ease and speed and with a great saving of animals.

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Thus far it has seemed that the Influenza B virus is less widespread and causes less severe infection than Influenza A virus. Not a few cases, or even epidemics, have failed to yield either A virus or B virus or show significant rises in antibodies in the serum of convalescents when titrated against these viruses. The American workers' hypothesis is that these are caused by a virus or viruses so far unknown, which they call Influenza Y. Some of the English workers suggest that instead of an entirely separate influenza virus, these cases may be due to a degraded "A" virus, active in man, but too weak to produce antibodies or infect animals.

There are interesting analogies between the disease in ferrets, the first experimental animal, and what we ordinarily call influenza in man. The ferret disease comes on 1 or 2 days after the inoculation of a well adapted virus, with fever, sneezing, nasal discharge, lachrymation, anorexia and lassitude. Pneumonia with partial consolidation is usually present. There is necrosis of the nasal respiratory epithelium, which becomes entirely reconstituted in about 3 weeks. Ferrets also are very susceptible to contact infection with the virus and stringent precautions need to be taken to keep them from accidental disease. After recovery from intranasal infection they are immune for a few months but usually lose all immunity within a year. This immunity is against all human "A" type strains, if "A" virus was used for the original inoculation. The antibodies in the serums correspond in general to the immunity of the animal against a test dose of virus.

Vaccination has also been tried on ferrets. Subcutaneous inoculation with a living virus stimulates antibody response but does not produce any firm protection against intranasal instillation of active virus. Horsfall and Lennette[7] by chance found a method of immunizing ferrets by the use of a vaccine consisting of influenza virus and a special strain of distemper. Vaccines of these types and formalized vaccine have been tried on man, and the results though conflicting justify further experimentation. It is much easier to produce antibodies in the serums by vaccination than it is to immunize against the disease itself; antibodies and immunity do not always run parallel in man.

Another kind of protection, so far not to be conferred artificially, has been investigated by Burnet[8] of Australia, whose work has been partially confirmed by Thomas Francis.[9] Serous nasal secretion was readily obtained by putting a rolled-up plug of gauze into each nostril. The plugs were wrung out between two artery forceps and the fluid tested for its power to inactivate the Influenza A virus. Part of this inactivating power which normal adults possess to a greater or less degree may be due to antibody from the blood, and part to an enzyme-like substance in the nasal secretion.

The questions may well be asked: Are we dealing in this experimental manner with the same disease as the pandemic influenza of 1918 and 1919? Are these small outbreaks only milder and smaller editions of the 1918 disease, or was the latter something entirely different? Our definition of influenza can be only in part clinical; in part it must be epidemiologic, in terms of its diffusing character. One striking fact about the uncomplicated cases of the pandemic was that they were not predominantly respiratory, yet some of our interpandemic influenza seems to be largely so. The individual case of influenza in the absence of a pandemic is difficult to diagnose, and the reporting of cases and statistical accounting of morbidity from the disease must be most uncertain. It is in fact the most irregular of all diseases reported to health departments. A numerical criterion for recognizing a real epidemic may be best based on a definite unseasonal increase in the number of deaths from all causes, where regular reporting of deaths takes place, and where other reasons for the rise are not apparent. On this basis, since the great wave reaching its peak in October 1918, we might consider in the United States that peaks of influenza occurred in December 1918 and January 1919, February 1920, February 1922, February 1923, March 1926, May 1928, January 1929, and January 1937. The first few of these waves at any rate can hardly be supposed to be anything but real influenza, both on account of their intensity and because it is characteristic for other waves to follow closely after a real pandemic.

One other striking peculiarity about pandemic influenza, at least the first waves, has already been mentioned, that is, the disproportionate number of serious cases among the young adults. This might be thought to be merely a function of prior immunity status, but the more comprehensively specific diseases are studied en masse, the clearer it becomes that each disease has its characteristics, with variations, as it affects the population as a whole, in the same way that it has its characteristics, with variations, in symptoms affecting the individual. The fact that the fever rises, then falls, and nearly all recover, is proof of the possibility of immunity in the individual, and the fact that epidemics wax, and then wane, is proof of the possibility of immunity of the mass.

No pandemic of disease in history was so severe as that of 25 years ago. Within 12 months there were over 20 million deaths from influenza, chiefly during the last 4 months of 1918. Wherever human contact with epidemic areas reached, the epidemic spread. Some small islands in the South Atlantic were spared, and now that we are in more important relation with the Antipodes we come to know that South Sea Islands rigidly quarantined against influenza until the whole pandemic died down not merely postponed their evil day, but largely escaped.[10]

Another characteristic of the real pandemic influenza is that it spares no season or climate. It is likely that the pandemic did originate in the apparently mild influenza-like outbreaks in various camps in the United States in the spring of 1918, was taken to Europe, the British and others receiving it from us in somewhat severer form in early summer, and then returned with full virulence to Commonwealth Pier in Boston on August 28, whence it spread west and east again. The week of highest mortality in Boston, October 5, was also the week of highest mortality in Bombay, India, and these were the two cities to suffer earliest in their respective countries.

As regards the mode of spread, no other hypothesis than transmission by infectious droplets and floating droplet nuclei can explain so well what has been observed of the epidemiology of the disease. Carriers or subclinical cases must also be supposed for some of the phenomena. And some diseases presumably spread in much the same way are much less prevalent or less deadly now than they were 25 years ago. The abolition of the common drinking cup was a much more recent affair then. We know, or think we know, more about ventilation now than then; drafts of cold air and cubic footage do not prevent infection so well as physical separation of people and modern sanitary practices.

Should an outbreak arise which threatens to herald an epidemic, of course every effort will be made to secure various strains of the virus, if a virus is the cause, and to find their relation to the interpandemic types which have been isolated. Blood samples should also be taken from large sections of populations not yet affected, to compare ultimately their antibody status against the incriminated cause, with their status after the wave has passed their city. The period of infectiousness of throat washings, and the distribution of the virus in various tissues of the body are important.

In conclusion, I should like to recall some experiments perhaps forgotten which were made

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THE CAUSES OF PERSISTENT FEVER ENCOUNTERED IN SULFONAMIDE THERAPY OF PNEUMONIA*†

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MOST of the pneumonias in adults are due to pneumococci. As the patients recover the invading pneumococcus is reduced in numbers and virulence and the smears of the sputum show chaining, clumping, pleomorphism and swelling of capsule with phagocytosis. Type-specific agglutinins appear in increasing titer and healing takes place. The nonspecific C-protein present during the infection disappears from the blood. The heart rate, temperature and leukocyte count return to normal, and the physical signs in the patient disappear in a varying number of days. If recovery is brought about with the use of specific antiserum, the protective and curative antibodies are injected into the blood stream in sufficient quantity to produce precisely the effects seen in spontaneous recovery but in a much shorter time and in a larger proportion of cases.

Therapy with sulfonamides, penicillin and similar preparations in the pneumonias depends for its effect upon the direct action of the drug on the organism responsible for the disease. The interaction between sulfonamide drugs and microörganisms has been studied in vivo and in vitro by a number of workers. Some of the in vitro experiments involve the use of living tissue. Thus Bullowa, Osgood and their co-workers[1] employing bone marrow cultures showed that after a latent period sulfonamides produce pleomorphism, chaining and diminution in the number of pneumococci. Frisch[2] demonstrated these phenomena in his studies on the sputum of patients with pneumonia, and we have duplicated his findings in our laboratory. With these changes in the microörganisms persistent demonstrable type-specific antibodies appear in the blood and the C-protein heretofore present disappears. At this point recovery from the disease is assured. In order to bring about this happy event with assurance by using the sulfonamides certain definite conditions must be fulfilled. In order to be affected, the disease must have as its causative agent one that is subject to bacteriostasis or bacteriolysis by the usual concentrations of the sulfonamide drugs obtained from ordinary therapeutic doses. Thus, various types of pneumococci, the streptococcus group, the Friedlander bacilli, and some members of the staphylococcus group are amenable to the action of these drugs. Some viruses may be subject to the inhibiting or destroying power of these drugs, although most of them may escape exposure because they are intracellular.

Having ascertained the presence of an organism that is usually drug sensitive as the etiologic agent of the disease, one must subject it promptly to an adequate dose of a suitable sulfonamide preparation. Kai-Schmith[3] has been able to classify pneumococci according to the susceptibility of definite numbers of organisms plotted against known concentrations of the drug. When the drug has acted satisfactorily in the manner outlined the fever falls and to the clinician the return of the temperature and pulse to a sustained normal is fair evidence of recovery. There are instances, however, in which after 72 hours of sulfonamide administration the temperature fails to fall. It then becomes necessary to reëvaluate the several factors concerned. For example, the original diagnosis may have to be rechecked, the invading organism further identified. Antibodies must be searched for, and the choice of the drug, its dosage and method of administration have to be reviewed. When no significant bacteriologic findings are reported, reëxamination may show that congestive failure, pulmonary embolism or infarction or coronary disease masquerade as pneumonias, or there may be found a pathologic process in the right upper abdominal quadrant causing splinting of the diaphragm in the high position and consequent compression of the base of the right lung.

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A review of the method of use of the drug may reveal that the initial dose was too small, the maintenance dose inadequate, or the blood level too low. To bring about an effective blood level we have found 4 grams is required as the initial dose by mouth for adults with healthy kidneys. It will take 4 hours to reach the peak of absorption. To maintain the blood level another gram will be required every 4 hours day and night. After adequate absorption of a satisfactory dose has been achieved a second 4-hour interval is consumed in achieving bacteriostatic action of the sulfonamide, requiring then a minimum of 8 hours from the administration of the initial dose to the time of inactivation of the microörganisms in the patient when the drug is given orally.

Fever may fail to recede and the patient continue to be ill when the primarily infecting organism is not susceptible to the action of a sulfonamide, or the temperature having returned to normal may rise again a day or two later to confound the clinician. The secondary rise may be due to invasion by another organism as in the case of a man with type VII pneumococcic pneumonia whose response to sulfathiazole was inadequate. Upon treatment with type-specific serum he recovered. In 2 days his temperature rose again. This rise was traced to a paratyphoid B. infection. In another instance the time the patient spent combatting her type III pneumonia was used as the incubation period for a subsequent typhoid fever.

Other pneumonias in which the drug may fail to be effective are the scattered consolidations encountered in pertussis, particularly in infants, in measles, and in tuberculosis. In these diseases also a type-specific pneumococcus may cause an accompanying pneumonia which may be brought under control by a sulfonamide. But in spite of the appearance of laboratory criteria of recovery, some fever persists. Further examination may then reveal that the recent consolidation had masked an active tuberculosis not previously discernible on physical examination or on X-ray films, the first knowledge of the tuberculous infection appearing when acid-fast bacilli are reported in the sputum (fig. 1). The solid tuberculous lobar pneumonia is another disease in which sulfonamide therapy fails, emphasizing the need for accuracy in diagnosis.

Persistent fever indicating therapeutic failure by these drugs may occur also in primary uncomplicated pneumonias of pneumococcal origin. Here the etiologic agent is a drug-fast pneumococcus. Resistance to one or more sulfonamides is studied by a simple laboratory procedure in which known numbers of pneumococci from the patient's sputum or blood stream are subjected to a series of measured concentrations of the various drugs. This is done by adding to a broth seeded with the organisms a small quantity of a 50 mg. per cent solution of sulfathiazole, sulfadiazine or other sulfonamide to give concentrations ranging from 1 to 15 mg. per cent. Thus, it may be found that the organism that flourishes in the presence of a 10 mg. per cent concentration of sulfathiazole may be quickly killed in a 15 mg. per cent solution of the same drug or a 5 mg. per cent concentration of sulfadiazine. As a rule, however, an organism is fast to all the drugs, although an organism may be fast to one drug and not to another, depending on the experience of the organism in a previous host. By correcting the blood level in the patient or changing to a drug to which organisms are not fast or introducing serum the clinical problem may be solved. Drug resistance of microörganisms from the very onset of adequate therapy may be designated as primary drug fastness. Resistance developed by a previously susceptible organism when therapy has been inadequate or the blood level too low may be called acquired drug fastness. Herein lies danger of inadequate initial dosage.

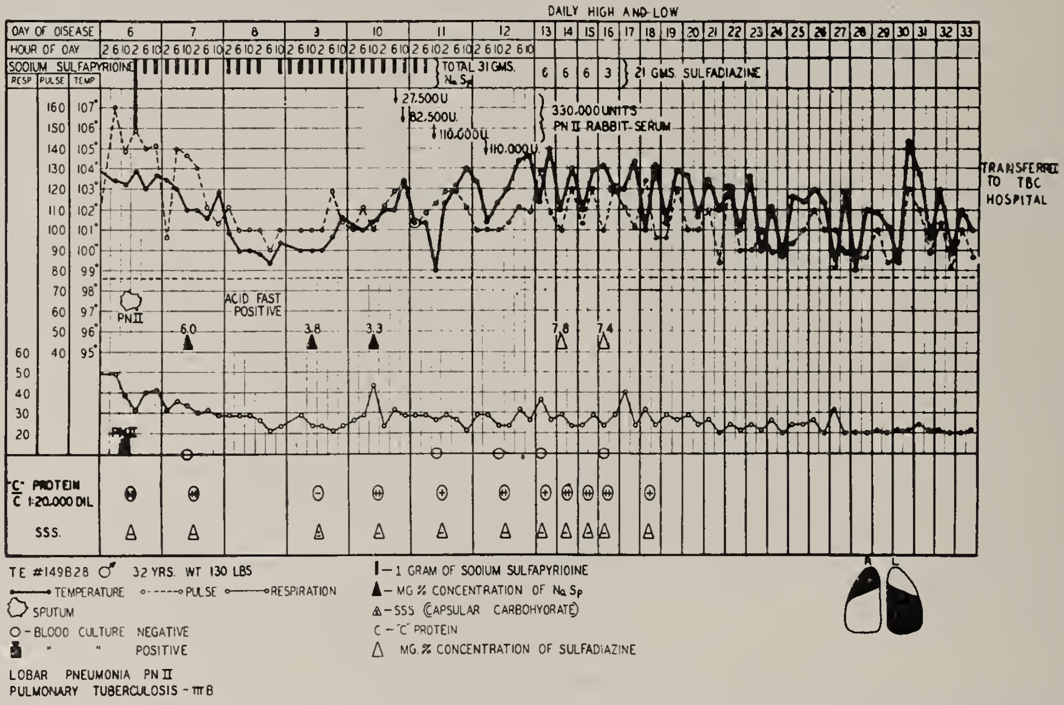

Fig. 1. Pneumococcus II pneumonia in a patient 32 years of age treated with sodium sulfapyridine and sulfadiazine; normal temperature on third day of treatment (eighth day of disease). Rise of temperature after discovery of acid-fast bacilli unaffected by chemotherapy. Anti-pneumococcus II rabbit serum given. Patient transferred to tuberculosis hospital.

Other nonpneumococcal pneumonias may be responsible for the persistent fever of drug failure. Thus, recently there have come to the fore patients with pneumonia from whose blood or sputum no identifiable organism could be recovered to be labelled the etiologic factor. These have been variously designated, but the name "primary atypical pneumonia, etiology unknown," as suggested by the War Department, has been accepted by most observers. An imputed virus has given rise to the term "virus pneumonia" for these cases.

Among the criteria advanced for the diagnosis of this disease are leukopenia and failure to demonstrate a responsible organism and a so-called typical picture on X-ray showing mottled or scattered consolidation. But before a diagnosis of nonpneumococcal pneumonia is to be made careful studies must be carried out, because true pneumococcal pneumonias may occasionally bear the earmarks accepted for so-called virus pneumonias. We have found low white cell counts and atypical X-ray findings in the former. Thus, a 40-year-old physician became ill with chill, a temperature of 105°F. orally and cough productive of white glary sputum. A colleague pronounced the disease virus pneumonia and withheld sulfonamide therapy. Three daily sputum examinations yielded no growth in cultures, but on the fourth day a type III pneumococcus was demonstrated. On the sixth day type-specific agglutinins were demonstrated in the blood. On this day too the temperature fell, and the patient made an uneventful, wholly spontaneous recovery. The white blood cell count was low throughout the disease, and the roentgenogram showed shadows designated as typical for virus disease. C-protein was present.

Racker in our laboratory has undertaken a special study of a group of pneumonias that seemed to qualify for designation as "primary atypical pneumonia" by reason of having no demonstrable bacterial etiology. There was no uniformity in mode of onset, clinical course, leukocyte count, or X-ray picture. Early in the disease no serum of these 20 patients could cause capsular swelling in any of the 54 types of pneumococci we have in our stock. Racker repeated his search for antibodies in each of these 20 unknown sera and found that in 8 patients, as recovery set in, type-specific capsule swelling antibodies appeared in increasing titer as demonstrated by capsular swelling.

We have attempted to separate the "virus" cases from the "primary atypical" cases, considering only those patients ill with virus pneumonia in whom a virus can be demonstrated. With respect to the occurrence of this disease our experience has been contrary to that reported so frequently, because in the past 2 years among 1,123 recovered cases of pneumonia on our service at Harlem Hospital only 3 yielded viruses. These were psittacine. One of us encountered in his private practice a patient with atypical pneumonia from whom Major Murray Sanders has isolated and identified in his laboratory the virus of epidemic keratoconjunctivitis. This will be the subject of a separate report by Major Sanders.

Cold agglutinins appear in the blood of patients with "primary atypical pneumonia of unknown etiology." This may be conditioned by the conjugation of the azoradicle of the sulfonamide drug with a blood protein. The specificity of the occurrence of auto-agglutination of erythrocytes at low temperatures is not certain nor is it known to what degree, if any, this phenomenon occurs in other pneumonias, pneumococcal or not.

Frequently there are admitted to our wards cases diagnosed and treated at home as "pneumonias" for a varying or, in some case histories, uncertain number of days. These patients have had sulfathiazole or sulfadiazine administered in adequate doses, have continued to be ill, and are sent to our hospital. Among them are patients who recover in a day or two. The local physician might have spared his patient hospitalization had he oriented himself by means of one or more simple laboratory procedures such as submitting blood for C-protein and agglutinins, examining the sputum microscopically for the effects of treatment: capsular swelling, phagocytosis, clumping, chaining, and pleomorphism of organisms. Among the patients who continue to be sick on our wards we find pleural effusion or lung abscess to be causes of prolonged fever. In the simple effusion one or two pleural punctures or even spontaneous resorption may solve the problem. In the cases with empyema of any portion of the pleural space, whether occurring alone or as a consequence of a ruptured subpleural pulmonary abscess, the sulfonamide drugs fail to act (fig. 2). The presence of pus interferes with the action of sulfonamide drugs through a number of mechanisms such as the appearance of para-aminobenzoic acid. The presence of fibrin flakes in the exudate serves in addition as a mechanical barrier between the drug and colonies of growing organisms. The fibrin acts as a foreign body, and it is useless to attempt sterilization of such a pleural cavity.

Although it has been possible in a very few instances to postpone surgical procedures for the relief of these complications, the treatment of choice for empyema in the thoracic cavity remains surgical. Frequent puncture of the pleural space gives partial drainage, and instilling solutions of salts of the sulfonamide drugs at best is a partial answer to the problem. The advent of a fibrolysin which actually dissolves fibrinous deposits is the next great step toward a nonsurgical method of handling these complications.

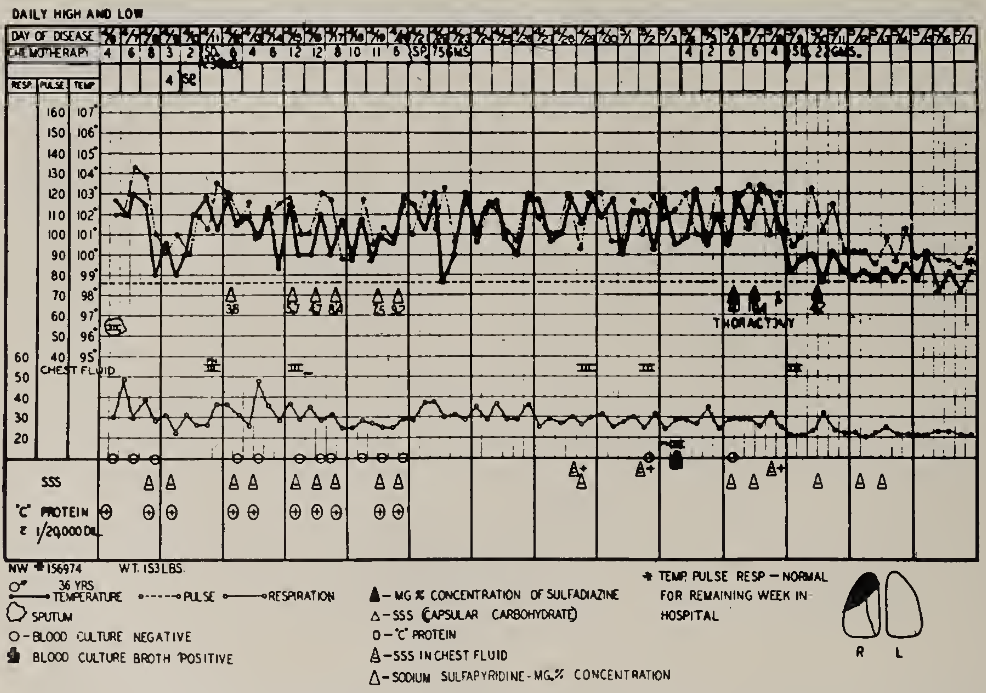

Fig. 2. Persistent fever, unaffected by sulfadiazine until thoracotomy for empyema was performed with removal of sheets of pus and fibrin. Complete recovery.

In another group of pneumonias the fever persists despite all the therapeutic armamentaria at our disposal. The patient becomes sicker, and the temperature fluctuates between wide limits. Laboratory recheck will reveal the continued growth of microörganisms in the blood. They may be pneumococci, staphylococci, or streptococci. If in the presence of a pneumococcal bacteremia type-specific agglutinins are found to coexist, a diagnosis of ulcerative bacterial endocarditis is unquestionably established, and so is the ominous prognosis that follows. This has occurred and is diagnostic before any cardiac murmur is heard or embolic phenomena are manifest. Further serum therapy is useless, sulfonamide therapy is not effective, and what may be accomplished with penicillin or other mould extracts is a matter still to be determined.

Another type of experience in the group of patients with persistent fever in the treated pneumonias concerns itself with the development of acute purulent otitis media and mastoiditis with or without any accompanying meningitis. This group is merely mentioned, since any adequate consideration of its clinical aspects would require extended discussion. We wish to emphasize that persistent leukocytosis in the cerebrospinal fluid may be due to the drug and not to the infection.

Finally, one may encounter the patient whose temperature has fallen, his sputum and blood showing evidence of an adequate immunity mechanism in operation and yet in a day or two becoming febrile again. These are really recovered patients with a new fever with or without rash, due to the fact that they are intoxicated by the sulfonamide drug. When use of the drug is stopped, the temperature promptly falls (fig. 3).

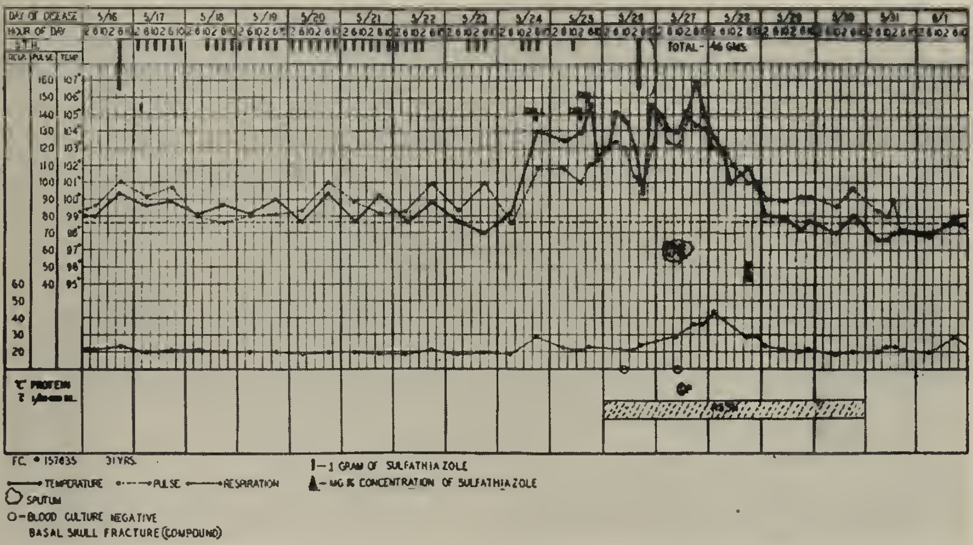

FIG. 3. Patient with skull fracture but no infection in whom sulfathiazole was administered prophylactically. The rise in temperature following chill after 10 days of administration returned to normal when drug was discontinued. A rash appeared on the tenth day. Sulfathiazole intoxication.

We have not found it necessary or advantageous to give the drug for a long time when temperature and pulse are normal for 24 hours, when C-protein disappears, and when type-specific agglutinins remain present for 24 hours. This may account for the infrequency with which we have encountered, except in sensitized patients, damage to the liver, blood or kidneys. If, however, there is a recurrence of C-protein, especially in older patients, or if type-specific antibodies disappear, these patients have not formed enough antibodies and may require supplemental doses of serum. In a case of B. Friedlander infection it was necessary to administer a vaccine to keep the patient well.

The introduction of the sulfonamide drugs, penicillin and other agents which destroy the etiologic agents producing the pneumonias signifies a major change in the tactics by which the pneumonias are fought. This major change has been associated with a marked reduction in the mortality of certain types of the pneumonias, but an increase in the mortality of others. The treatment by augmentation of the protective armament has not become obsolete, nor are the methods of study and classification to be discarded. They must be still further amplified and more widely applied if the best results in the acute combat are to be achieved, especially in older age groups. The problems in the defense are inherent in the diseases, some of them hitherto unrecognized virus infections. Some of the old problems of anaphylaxis or sensitization which were present in the use of sera have come up in new forms in the sulfonamide drugs and may be present in the mould extracts. Fastness is present in both. The

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ERGOT IN DELAYED POSTPARTUM BLEEDING

A Preliminary Report

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POSTPARTUM hemorrhage and its dangers are well known to every obstetrician. The causes and most effective treatment for this unfortunate complication of labor, however, are not so well known and despite almost endless discussion are still far from a wholly satisfactory conclusion. Schumann[1] believes that analgesia and anesthesia during labor are often the cause for unusual bleeding and urges a better management of the third stage in closer accord with the physiologic principles concerned.

In an intensive study of postpartum complications Beecham[2] observed that in fatalities due to hemorrhage the interval between the onset of bleeding and death is between 5 and 6 hours, and that active treatment usually is not started for some hours. The patient in whom bleeding is violent receives immediate attention and generally recovers, whereas the women in whom bleeding is moderate are permitted to go on with various mild measures until sudden anemia sets in, blood pressure falls, and death occurs before more active treatment can become effective.

This paper covers the case records of 80 patients with particular consideration of the clinical effectiveness of certain ergot preparations in preventing or controlling immediate and delayed bleeding. Ergot is undoubtedly our most reliable drug for uterine hemostasis, although it was first introduced into scientific medicine by John Stearns[3] of Saratoga County, New York for the purpose of hastening parturition. He employed the crude drug, administering it in the form of a decoction or powder.

Ergot is no longer used to hasten delivery and conserve the physician's time as advocated by Stearns, nor is the powdered drug or preparations made from it now regarded as the most dependable form in which to use it.

Numerous studies on ergot have shown that its alkaloids are responsible for its therapeutic activity, and there is reasonable agreement in the belief that ergotamine and ergonovine are representative of these substances. Each alkaloid, however, has a specific uterine action and is responsible for only a portion of the total effect. The action of ergotamine is slow in onset but persistent, whereas the effect of ergonovine comes on quickly and is intense but lasts for only a short time.

In a lengthy discussion of ergot, Guggisberg[4] suggests that a combination of ergotamine and ergonovine is the most desirable preparation. This view is supported by Hellman, Posner and Ciner,[5] who observed 403 postpartum patients, 203 of whom were given ergonovine while 200 received a combination of ergonovine and ergotamine (Neo-Gynergen). Ergonovine proved highly active, safe on administration, and capable of producing intense uterine stimulation, but, so far as the puerperium is concerned and as judged by the temperature, rate of involution, and freedom from postpartum bleeding and lochial disorders, the most uniformly beneficial results were obtained with Neo-Gynergen. One-half to 1 c.c. was injected intravenously or intramuscularly immediately after the expulsion of the placenta, followed by 3 tablets daily for the first 2 or 3 days.

Of the 80 patients considered herein, 55 were delivered normally, 23 by low or mid forceps, 1 by breech extraction, and 1 by version and extraction made necessary by transverse presentation and cord prolapse. As a routine the first 61 patients were given ergonovine intravenously, and of this group 3 (5 per cent) suffered from immediate profuse bleeding requiring further treatment, while 25 (41 per cent) experienced moderate bleeding lasting beyond 4 hours, and 2 had persistent lochia rubra. The subsequent 19 consecutive patients were given 1 c.c. of Neo-Gynergen immediately after delivery and only 3 (16 per cent) showed no more than moderate bleeding lasting beyond 4 hours.

Conclusions

Since the delayed type of bleeding obviously is of such great importance the advisability of using hemostatics with prolonged action is at once evident.

From the data presented herein, which agrees substantially with that published elsewhere, the combined administration of ergotamine and ergonovine is superior to the use of ergonovine alone as a preventive of atonic postpartum bleeding of the delayed type.

1750 Grand Concourse.

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New method gives quick relief from chest pain in pneumonia. What he believes to be a simple and effective procedure for relieving pain of pleural origin which is often associated with pneumonia is reported in *The Journal of the American Medical Association* for November 6, 1943, by Harry J. Price, M.D., Atlanta, Georgia. His procedure, known as intercostal nerve block, involves injection of procaine hydrochloride into the nerves in spaces between the ribs over which definite tenderness can be elicited by slight pressure.

"Pain of pleural origin," Dr. Price explains, "causes the physician great concern in the treatment of pneumonia and pulmonary infarction. It is often persistent, agonizing and exhausting. The rapid, shallow respiration which results from it does not aerate the lungs sufficiently and may promote atelectasis. Furthermore, it is the pain itself which brings the patient to the physician. Rapid relief of this pain gives the patient great confidence in the doctor. The variety of procedures suggested for the relief of pleural pain has emphasized the obstinacy of the problem. Counter-irritation, adhesive strapping, the use of opiates, artificial pneumothorax and local injection of the pleura and subcutaneous tissues with procaine hydrochloride each has had its advocates. . . ."

Dr. Price says that his method often produces permanent relief. It allows relatively free motion of the chest wall and so favors adequate aeration of the lungs, affording protection against the complication of collapse. Drainage of the involved area of the lung is promoted, for coughing is rendered nearly painless.

"In a series of 14 consecutive cases," he says, "severe pleural pain was relieved effectively by intercostal nerve block. The resultant improvement in the general condition of the patients was striking. Anxiety disappeared, and most patients fell asleep shortly after the procedure was completed. For some, this was the first rest in many hours."

Regarding the permanent relief of the pleural pain, Dr. Price says that the immediate relief after procaine block was to be expected. However, he says the prolonged disappearance of the pain came as a distinct surprise. At first it was thought to be a mere coincidence, but later it became clear that prolonged relief of pleural pain was the usual result of intercostal nerve block. The anesthetic effect of the procaine lasted only a short time. Therefore, prolonged anesthesia could not account for the permanent disappearance of the pain. The increase in depth of breathing was striking in all cases as soon as the pain was completely abolished, and, Dr. Price believes, it may be that the increased motion of the pleura was in some way connected with the permanent relief of pain.

"Recent studies," he says, "have demonstrated that prolonged relief of pain from a sprained ankle may result from the combination of local anesthesia and motion. As in the case of pleural pain, the disappearance of pain in the ankle persists long after the anesthetic effect of the procaine has worn off."

He points out that others have injected procaine hydrochloride for relief of pleural pain but the procedure has not involved injection directly into the nerves involved and has been successful only where the pain was well localized.

President's Page

AN ABLE JURIST SPEAKS HIS MIND

Seldom does a speaker on a non-scientific subject make as deep an impression on his audience as did Justice Bolitha J. Lawes of the District Court of the United States for the District of Columbia when he spoke to the Medical Society on November 3. His address was not only informative but touched upon a number of problems which the medical and legal professions have in common.

The topic selected by Justice Lawes was "Medical Witnesses," but his dissertation was far greater in scope than the title would imply. Not only did he deal with the doctor in court but he spoke with sympathetic understanding on some very important problems of the postwar period. Of these the one on which he placed the most emphasis was the fact that when our youth now in the armed forces return to civilian life, many will have been deeply seared by their war experiences. It was none too pleasing a picture which Justice Lawes drew for his audience. He said that the psychological effect of the type of warfare in which our men are engaged would undoubtedly result in emotional disturbances when they try to adjust themselves to less exciting peacetime activities. This has always been true following wars, but in modern history there has never been a conflict in which methods of fighting have been as ruthless as in this one. The result, he predicted, will be an increase in crime which, if it is to be dealt with adequately, will demand all the psychiatric skill of the medical profession if lives which might otherwise be lost to society are to be salvaged.

I am much pleased to learn that Justice Lawes has agreed to write an article for the Medical Annals. Members of our Society might well look forward to his contribution on this subject for it is one of the greatest importance to all of our people.

When our boys will come marching home, no one can foretell. Whenever it is, we must be prepared to help ease them into a normal existence. It would be a tragedy to permit them to become peacetime casualties.

The people of this country are greatly indebted to able and fearless leaders such as Justice Lawes, who has long been cognizant of the fact that there are other factors in crime and criminal tendencies than merely the will to do wrong. More to his credit is his record, which shows that he has done something about it.

Fred R. Sanderson

Editorials

ONLY OUR FIRST OBJECTIVE

The medical profession is apparently stirred up about the Wagner-Murray-Dingell Bill. Fiery editorials are appearing in medical journals throughout the country. These, of course, will have little influence on the turn of events for they are read by only a minority of physicians. However, one would seem justified in deducing that they represent more than the views of the editorial writers. There is evidence that the proposed legislation is being widely and heatedly discussed by groups of physicians. Many physicians in the military services are said to be so disturbed by the prospect of private practice coming under Government control that they plan to remain in the armed forces. That organized medicine is alive to the situation is shown by the present activity of medical societies and individual members. Resolutions and letters are being directed to Congressmen and Senators protesting the enactment of legislation which would regiment the medical profession. Views on this subject are also being expounded by physicians to their patients.

Physicians can win their fight against the Wagner-Murray-Dingell Bill, but what then? The medical profession must not overlook the fact that the defeat of this legislation will not eliminate the underlying factors. The fight for and against changes in medical practice has been going on for more than a decade. It is recognized by both physicians and laymen interested in this subject that changes are needed although they hold divergent views as to how they should be brought about. Extremists on the left believe the solution lies in regimentation while those far to the right want to retain the status quo. It can be safely prophesied that neither will realize their desires. As is always the case, there will be compromise.

Rumors are always rife in Washington and usually they cannot be taken too seriously even when they supposedly emanate from a reliable source. One report is going the rounds that those who helped write the Wagner-Murray-Dingell Bill do not expect it to pass but they do hope it will bring the medical profession to a consideration of a national health program. True or not, organized medicine should be ahead of the trend if it is to discharge its responsibilities.

There are certain factors which we now know will have to be taken into account in the future. For example, seven to perhaps nine million men now in the armed forces will return to civilian life at the close of this war. They and perhaps their families will be entitled to a certain amount of medical care at Government expense. Obviously, all of the needed services cannot be rendered by Governmental institutions. How can it be done most satisfactorily? The medical profession should know the answer to that question in the very near future. Then, too, there will undoubtedly be a disruption in the economic system of our country. To what extent this will lower our standard of living, no one can say. Rear Admiral Ross T. McIntire, Surgeon General of the Navy, among others has warned that incomes will be drastically reduced and it will be necessary for the medical profession to make it possible for people of all classes to obtain the best quality of medical care. Whether this can be done through so-called prepayment plans and various forms of voluntary sickness insurance schemes now in operation, Admiral McIntire says, remains to be determined. The important thing is that we experiment now and be prepared for whatever demands are made upon us.

The point of this editorial is that the defeat of the Wagner-Murray-Dingell Bill, important though it is, will not dispose of important issues involved in providing medical care to the people of this country.

MEDICAL PRACTICE UNDER SOCIAL SECURITY

(New Zealand)

Most physicians feel no need of firsthand experience to convince them of the undesirability of a Federal system of compulsory medical and hospitalization insurance such as is proposed in the Wagner-Murray-Dingell Bill. The provisions of the bill provide them with ample arguments against its enactment.

However convincingly they may advance their views, there is considerable advantage in being able to present the testimony of physicians who have served under such a system. Recently a letter was received from a Washington physician, now with the armed forces in Australia, who enclosed a report made by a New Zealand physician on medical practice under the Social Security scheme in that country. The latter, who is described as a "gentleman of some intellectual distinction who has demonstrated a great deal of discrimination in the past," had this to say:

> "I may at once open this report by stating that my opinion is adverse, because it appears to me that the system introduced by the Social Security Act tends to demoralization of the medical profession and deterioration of the quality of the medical service of the people. The reasons for these conclusions are:
>
> 1. The opportunities afforded for modes of conduct of practice which, while perfectly legal, are repugnant to higher professional ideals.
> 2. The inducements offered to consider quantity of work before quality; for the essence of the system, as it affects the doctor's livelihood, is that the greatest financial gain is to be obtained from numbers—number of patients on a list, or number of attendances given.
> 3. The emphasis drawn to the financial aspect of practice.
> 4. The increase of time-consuming documentation, which decreases the time available for the proper duties of investigation, diagnosis and treatment, and causes irritability."

It is to be regretted that the entire report cannot be published in these columns. Because of its length this is impossible. There are a few high lights, however, which we are happy to publish. Of special interest are the different methods of paying physicians and their effect upon the quality of medical care.

Participating physicians may be compensated in one or more of the following ways:

1. The Capitation plan under which participating physicians are paid so much per person per year plus mileage computed on capitation and distance.
2. The General Medical Service plan whereby the doctor claims from the Social Security Fund payment for each attendance.
3. The General Medical Service plan under which the doctor serves a special area and is paid a salary.
4. The Refunds provision of the Social Security Amendment Act, 1941 whereby the patient is refunded by the Government for medical expenditures on the basis of a fee schedule and where the recipient of the refund pays the doctor.

This last method of payment, the author explains, is "to practise as hitherto and supply to the patient such receipts, etc., as may be necessary to enable the patient to claim the statutory refund on fees paid.

> "This is the course followed so far by a majority of doctors. The doctor charges the patient his ordinary

fees. On paying the doctor's bill the patient can claim refund of the statutory fees from the Social Security Fund, i.e., the same amount as the doctor would have claimed had he taken payment direct from the Fund. When mileage is involved this is exceedingly difficult, for the distance from one patient to another on a country road must be set out and the names of other patients visited on the round have to be given. Except for the mileage difficulty it may be thought that there is not much to urge against this system. The standard of practice could be maintained. The refund gives the patient a return for his tax. The doctor gets his ordinary fee and the fact that the patient pays something should be a deterrent against frivolous and unnecessary attendances. Experience shows, however, that practically it is not possible to conduct practice as formerly. Present depletion of the number of doctors in civilian practice, duties in connection with the hospitals and army, together with increased demand for attendance, have so increased the work of private doctors that there is not time for the deliberation of former days. Added to this is documentation, increased tenfold. . . . Certificates are required in profusion—certificates off and on work, certificates for the various benefits, certificates for layettes, benzine, hot-water bottles, eggs, oranges, for X-ray examination and massage treatment, and for exemption from essential industry, Home Guard duty or return to camp, for sleepers on trains, for wireless sets free of registration fee, etc. Few people leave a consulting room without two or three pieces of paper filled in and signed by the doctor personally. One has known it to be six or seven. The feeling of exasperation as the patient stands by to exact his full quota of documents while there are several patients awaiting attention in the next room does not induce a frame of mind favourable for patient enquiry or thorough investigation. Then, if the patient's claim for Refunds reveals prolonged attendance or if prescriptions show continued use of medicine over a long period there may be explanation asked by the Medical Officer of Health. However tactfully such enquiries may be made by Officers, who relish it no more than we do, a feeling of irritation results, not conducive to harmony. Beyond these difficulties tending to less clinical efficiency, there are subversive temptations open even to those who elect to practice the fourth option.

(a) Since the patient can obtain a refund of at least part of the fee, the idea of raising the fee might occur. If this has happened, I feel sure very few have done it.

(b) One may, whilst following the refund principle, in the case of well-off patients, claim direct from the Fund for poorer people from whom formerly little or nothing was received. This is done quite commonly and betrays more regard for financial than ethical considerations.

(c) It is alleged that, in some cases, the doctor claims the statutory fee direct from the Fund and charges the patient with the difference between that and his ordinary fee; e.g., the patient pays three shillings and the doctor claims seven and sixpence from the Fund. We have been advised that this is really illegal."

There is no reason to believe that the experience with a similar system in this country would be different. Physicians would be swamped with forms and office detail for no vast undertaking of this type can operate without red tape. Commercialism would invade medicine to a far greater extent than at present. The inevitable result would be an inferior quality of medical service.

SELECTIVE SERVICE MOVES AHEAD

Those physicians of the District who have occasion to assist in the examination of draftees at the Induction Station at Fort Myer will be interested to know that "at long last" Selective Service has taken steps to provide examiners with information regarding the health, work and school record of draftees. Under date of October 18, 1943 the National Headquarters of the Selective Service System issued Medical Circular No. 4, thus taking official cognizance of the locally sponsored plans which have been in operation in several states and establishing a national program.

Volunteer medical field agents are to be appointed for each local board, who will obtain on each registrant the sort of information which any physician would wish to have relating to any patient seen in his office or in the hospital—school record, adjustment to work, illnesses such as gastric ulcer, rheumatic fever, diabetes, heart disease, various named personality or mental disorders, and the family history of illness. Provision is also made for the procurement of detailed personal information from the schools attended by the registrant. These data are forwarded, sealed, to the Induction Station, and do not become a part of the local board's records, subject to inspection by the registrant. The information is thus kept confidential.

Psychiatrists are not the only ones who have felt frustrated by the crystal-gazing ability apparently expected of them at the Induction Station, although they have been more handicapped by lack of previous history than has, for example, the orthopedist. The records of the armed forces are full of instances in which a man, after the dislocation to induction, has been more or less promptly discharged, whereas the possession of certain elementary facts relative to his history would have indicated his physical or mental inability to meet the demands of military life.

The desirability, not to say the necessity, of a plan like the one outlined here has been amply demonstrated in Massachusetts, Connecticut, New York, New Jersey, Colorado and several other states. Colonel Leonard G. Rowntree, Chief of the Medical Division, and Dr. Raymond W. Waggoner, the recently appointed Psychiatric Consultant, are to be complimented on securing recognition of the need of such a plan. Although the present plan comes about rather late in the process of building an Army and a Navy, it is unquestionably a substantial addition to the selective process, and one which will benefit both the registrant and the Government.

W. O.

In and Out of Focus

BY THE OBSERVER

Martin Warns Against State Socialism

Charging that "a small but powerful group in this country has endeavored to undermine American institutions, American ideals, and our American way of life," House Minority Leader Joseph W. Martin, Jr., addressing the Public Meeting held in connection with the 15th Annual Scientific Assembly of the Medical Society of the District of Columbia at the Mayflower Hotel, on October 1, said, "The purpose, of course, of these plotters in attempting to tear down American institutions and our form of government is to substitute some brand of State Socialism in this country."

Turning his attention to the problems confronting the medical profession, Mr. Martin warned that "these groups would radically change the status of your profession. Instead of leaving you free, they would regiment you under a rigid system of governmental controls."

Enlarging upon this theme, Mr. Martin said, "These misguided individuals evidently forget that if you regiment men and women, if you eliminate the opportunity for individual progress, you kill individual initiative at the same time.

> "A ward of the State, with specific limitations and a fixed income, operating under the direction of a bureaucrat who may himself possess no scientific knowledge, would not, except in rare instances, put in the long hours of intensive study and experimentation necessary to blaze the way for progress. A physician on a fixed salary and in a treadmill practice would not have the same urge to watch zealously over those in his care as the physician whose patient is his personal, individual responsibility. By destroying initiative and progress, we might well be sentencing vast numbers of people to earlier death because we could not as intelligently cope with disease.
>
> "Every one of us has a definite interest in seeing that every child, every woman and every man secures adequate medical aid and care. We can and we will, as a Government, discharge our full obligations to the sick,

the aged, and the unfortunate, unable to pay their own way. But we must do it in the American way—in a way which will preserve the spirit and the initiative of the men and women of your profession. They must be encouraged to go ahead with studies and experiments, to make new and greater scientific discoveries for the benefit of mankind. And we must care for our ailing ones in such a way that every patient will not be a ward and pawn of an all-powerful State.

"We must not shackle your great profession and restrict the service it can give to the world. If we give to some bureaucrat the power to regulate the practice and fix the fees of a physician and to govern the hospitals, we will shackle the science of medicine. We must make sure every man and every woman retains the right to select the doctor of his or her own choice. That has been a great American right and the people of this country want to keep it.

"To place the practice of medicine under bureaucratic control would not affect medicine alone; it would constitute a long forward step in putting the other professions and all American labor, industry and agriculture permanently under the direction of a Washington bureaucracy. By whatever name we might call it, it would be a form of State socialism.

"You plainly see the threat hovering over your own profession, and you are not alone in your anxiety. Other classes in our national life face a similar peril.

"All professions and all business, big and small alike, face the menace of a new era in which private enterprise will no longer have a free opportunity to flourish."

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Doctors Are a Privileged Class!

To say publicly that the medical profession belongs to the privileged class would, without explanation, not endear us to those people who are not too friendly toward doctors anyway. For the impression would be gained that we believe ourselves set apart and entitled to special consideration. That is not what your Observer had in mind in writing these paragraphs.

Recently he came across excerpts from an address by Rudyard Kipling before the student body of the Medical School of the Middlesex Hospital, London, on October 1, 1908. Mr. Kipling said:

"I have had the good fortune this afternoon of meeting a number of trained men who, in due time, will be drafted into your permanently mobilized army which is always in action, always under fire against Death. Of course, it is a little unfortunate that Death, as the senior practitioner, is always bound to win in the long run, but we noncombatants, we patients, console ourselves with the idea that it will be your business to make the best terms you can with Death on our behalf; to see how his attacks can best be delayed or diverted, and when he insists on driving the attack home, to take care that he does it according to the rules of civilized warfare. Every sane human being is agreed that this long-drawn fight for time which we call Life is one of the most important things in the world. It follows, therefore, that you, who control and oversee this fight, and who will reinforce it, must be amongst the most important people in the world. Certainly the world will treat you on that basis . . . It seems to be required of you that you must save others. It is nowhere laid down that you need save yourselves. That is to say, you belong to the privileged classes."

Only Kipling could so beautifully describe the doctor's privileged status. It is our sincerest hope that neither commercialism, politics nor regimentation will blight the medical profession's opportunity for service to suffering humanity.

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The Nursing Situation

What can be done about the nursing shortage in the District of Columbia? Are nurses being employed to the best advantage? If not, what should be done about it?

Because of the demand for nurses by the armed forces, it is becoming increasingly apparent that something must be done to avert a nursing crisis. For example, patients will have to get along with much less nursing than they have had in the past. That this can be done without neglecting patients who need special attention is agreed by those informed on the subject.

The District Procurement and Assignment Committee for Nurses was organized last month to cope with the nursing situation. Members of the Committee are:

Miss Gertrude H. Bowling, *Chairman*, Executive Director, Instructive Visiting Nurse Society; Chairman, Health Division, Council of Social Agencies; member, District of Columbia Red Cross Recruitment Committee. Miss Bowling represents Public Health Nursing on the Committee.

Miss Lucy Masten, Director of Nurses, Doctors Hospital; Secretary, District of Columbia Red Cross Recruitment Committee. Represents hospitals without training schools for nurses that train auxiliary workers.

Miss E. Genevieve Wilson, Director of Nurses, Garfield Memorial Hospital; President, District of Columbia League of Nursing Education; member, District of Columbia Red Cross Recruitment Committee. Represents hospitals with schools of nursing.

Mrs. Anne Hopewell Hewitt, private duty nurse. Represents private duty nursing.

Mr. Theodore Wiprud, Secretary, The Medical Society of the District of Columbia; Secretary, District Procurement and Assignment Service for Physicians. Represents the Medical Society of the District of Columbia.

Dr. John M. Orem, Superintendent, Sibley Memorial Hospital; President, District of Columbia Hospital Superintendents' Association. Represents the Hospital Superintendents' Association.

Miss Mary Switzer, Assistant to Mr. Paul V. McNutt, Chairman, War Manpower Commission.

Mrs. Mary A. Hickey, former Superintendent of Nurses, Veterans Administration.

Mrs. Hugh Rowan, Director, Nurses' Aides D. C. Chapter, American Red Cross.

Miss M. Cordelia Cowan, Executive Secretary, Nurses' Examining Board; member, National Committee on Supply and Distribution. Represents the Nurses' Examining Board.

Miss Edith M. Beattie, Executive Secretary, Graduate Nurses' Association; Secretary, District of Columbia Nursing Council for War Service. Represents the Graduate Nurses' Association and the Nursing Council.

One of the first tasks of this Committee was to determine the nurses who are essential in the various hospitals of the city. It is now giving its attention to the possibility of inaugurating group nursing in our hospitals as proposed by the Graduate Nurses' Association. If a satisfactory program can be worked out by hospitals and nurses, doctors will be asked, wherever possible, to request their patients to share nurses' services. Another project to be undertaken immediately is the classification of nurses engaged in various types of work.

There is growing evidence that medical and other personnel is reaching a point where medical care as usual cannot be given to civilians in the District of Columbia. Recognizing this fact the District Procurement and Assignment Committee for Nurses proposes to be prepared to meet any eventuality.

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Gallinger Investigation

When the hue and cry incident to a Congressional investigation in the District of Columbia dies down, there is little point in stirring up the embers. For at best they are depressing spectacles and often quite unnecessary. However, it seems we must be subjected to them periodically. This, despite the fact that the objectives sought could be attained without emotional fireworks.

The recent investigation of Gallinger Hospital is an example of what your Observer has in mind. No one denies that improvements are badly needed at this institution. In fact, it is well known to both officials charged with its administration and to the Congress. Time and again funds have been sought to employ sufficient personnel, to purchase necessary equipment and to build adequate buildings. Too often these requests have gone unheeded. Congress itself has in certain instances rejected recommendations made by administrative officials and must accept its full share of responsibility for conditions which exist at Gallinger.

We of the medical profession have a special interest in the situation for we are deeply concerned with maintaining a high standard of medical care in the District. We want, too, to see justice done where physicians concerned are known to us to be capable and devoted to their work. For example, the Subcommittee of the Senate District Committee recommended the removal of Dr. George C. Ruhland, the District Health Officer, Dr. Edgar A. Bocock, Superintendent of Gallinger, and Dr. Charles P. Cake, Chief Medical Officer in Tuberculosis of Gallinger. No professional group passed on the capabilities of these men nor the manner in which they had discharged their duties. Certainly this should have been done. No reference was made by the investigators to the services rendered by the voluntary staff of physicians who serve Gallinger without compensation.

The Society's Executive Board properly gave its whole-hearted support to Dr. Ruhland and by implication to the other members of the medical staff. Dr. Ruhland, who carries the responsibility for Gallinger Hospital, has been an excellent health administrator, and in the opinion of your Observer deservedly received the Society's support.

It is hoped in future when Congress decides investigations are desirable that they will be conducted with less fanfare and more evidence that sound information is being sought. This Observer is certain that the Society will be glad to lend its coöperation in such an undertaking.

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Strong Words

Tempers, it seems, are becoming shorter. Medical leadership in this country comes in for some very severe criticism in the September, 1943 issue of the *Journal of the Indiana State Medical Association*. The *Journal* says,

> "... It is our frank opinion that this leadership has long since gotten into a rut—a deep one at that—and that it will require a long, steady pull to get ourselves out of that rut. And get out we must, if we are to go ahead."
>
> "Too long have we sat supinely, basking in the assurance of the 'powers that be' that all is taken care of; that, while we do not have an official agency in the National Capital, all is being taken care of, and that in the end Medicine will come out victorious.
>
> "Well, the facts are, Medicine just hasn't done that; on the other hand, Medicine has taken some darn good lickings—and will take more if we do not awaken and do something about it. So, as we say, this new committee [Council on Medical Service and Public Relations] has a job and it remains to be seen how they will approach that job and what they will do with it."
>
> "We talk about being at the 'cross roads'; we prate about 'the future of Medicine'; we write about a lot of similar things, but we really do little about it. It is our opinion that right now a lot less chatter and a lot more action is the thing needed."

Justified or not, your Observer believes that criticism of this sort is a healthy sign. It indicates that the "boys" are beginning to realize there is a job to be done—now.

The newly created Council can provide the leadership that is needed. We hope and believe that it will. It is our duty, therefore, to give the Council whole-hearted support.

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Inter-professional Conference

At its meeting on September 24, 1943, the Interprofessional Conference of Washington discussed many matters of importance. As usual, representatives of the medical, nursing, dental, pharmaceutical and hospital organizations were present. In addition, there was Dr. George C. Ruhland, District Health Officer, who is participating in the Conference in an advisory capacity.

The desirability of sponsoring a health exhibit such as was on display at the Century of Progress Exposition in Chicago was considered. A special committee was appointed to investigate the possibility of such an undertaking in the District of Columbia.

Mr. A. C. Taylor, representative of the District of Columbia Pharmaceutical Association, presented a memorandum which he had prepared dealing with the change in formula of many pharmaceutical specialties. He said that the alcoholic strength had been altered in some drugs to 50 per cent of the original strength. This was causing some difficulty. For instance, a prescription of phenobarbital in a vehicle of 15 per cent alcoholic strength will not remain in solution when the alcoholic strength is reduced to 10 per cent. Precipitation will not occur until some time after compounding, causing the mixture to be returned to the pharmacist with the claim that it had not been properly compounded.

These changes are made by the manufacturer because of the shortage of alcohol, glycerine, sugar, essential oils and many other common drugs. Glycerine is greatly needed in the manufacture of explosives and is, therefore, allocated in lessened quantities to drug manufacturers. This necessitates the use of substitutes such as sugar, corn syrup, etc.

Mr. Taylor said these changes make noticeable differences in taste, odor, color or density and in many cases they change a workable formula into an unworkable one. He thought that physicians should know of this situation when they receive complaints from patients.

Miss Beattie, of the Graduate Nurses' Association, reported that the District Procurement and Assignment Committee for Nurses had just been organized and was beginning to function. She discussed briefly H.R. 3314, a bill "to provide for the disposition of funds collected by the District of Columbia Examining, Licensure and other boards and commissions and for other purposes."

The Conference meets monthly throughout the year.

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World-wide Interest in Assembly

No greater compliment could be paid the Subcommittee on Program of the Committee on Arrangements for the 15th Annual Scientific Assembly than the fact that several papers on the scientific program attracted world-wide attention. On the morning following the first day of the Assembly, a request came from Moscow via London through the Office of War Information for papers given by two speakers on the program. It seems that a news report written by Frank Carey of the Associated Press had come to the attention of government officials in Moscow who wished to know about the methods of treating battle wounds described at the Assembly.

All of the Washington newspapers covered the Assembly thoroughly this year, as did such publications as *Time*. In the October 18 issue of *Time* there appeared an article on papers given by Lt. Colonel B. Noland Carter, M.C., U.S.A., on "Current Trends in Military Surgery" and by Dr. R. H. Ivy, Professor of Maxillo-Facial Surgery, University of Pennsylvania School of Medicine, on "Plastic Surgery."

The Assembly is taking its place among the leading medical meetings in this country. Your Observer wishes to repeat what has been said before by officers of our Society that in many respects the program and exhibits of the Assembly cannot be duplicated by any state medical society in this country.

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What the Radio Listener Detects

The other evening your Observer was listening to the American Town Meeting of the Air. A discussion was in progress on the question, "Are Local Health and Medical Services a Federal Problem?" Several able speakers were participating. One was impressed by the sincerity and conviction with which some spoke and the glibness of others. The latter evidently impressed the studio audience but your Observer is quite certain the radio listeners were not so favorably influenced.

Radio listeners weigh, without distractions, the soundness of ideas advanced. Oftener than not they detect insincerity and superficiality. This debunking via radio will undoubtedly have a deciding influence on how the people of this country will decide the major issues before them. And that includes efforts being made to regiment the medical profession.

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A Forward Step

Out in the Midwest during the month of August an important conference was arranged in which members of Congress and their constituents, representing farming, retail business and the professions, participated. Among the groups

(*Continued on page 454*)

THE 1943 DAVIDSON LECTURE

An event which is looked forward to by Washington physicians is the biennial Davidson Lecture. Established in 1929 in commemoration of the outstanding service rendered to the medical profession in the District of Columbia by Dr. Edward Young Davidson, the papers presented by the lecturers have been of a uniformly high standard.

The selection of a lecturer was placed on a competitive basis in 1936. It was hoped that the Lecture would prove a stimulus to research and high performance not only among the older more established practitioners but among the young physicians as well. It was accordingly agreed that "the selection of the Davidson Lecturer shall be on the basis of competition, the winning essay to be selected by a subcommittee consisting of five members of the Executive Board appointed by the Chairman. . . ." The second Wednesday in October of the odd numbered years was fixed as a permanent date for these lectures.

The subcommittee of the Executive Board assigned to make the selection of the lecturer this year were: Dr. Henry R. Schreiber, *Chairman*; Drs. William P. Herbst, Jr., A. Magruder MacDonald, Fred R. Sanderson and Raymond T. Holden. Their choice was Dr. Walter Freeman who submitted a paper on "Frontiers of Multiple Sclerosis."

This is the second time that Dr. Freeman has been chosen to give the Davidson Lecture. In 1939 his paper entitled "The Surgery of Mental Disorder" was deemed the most suitable of those reviewed by the subcommittee.

Needless to say, it is a distinction for a physician to receive the Davidson Lecture Award. The subcommittee feels that Dr. Freeman is most worthy of it.

Dr. Walter Freeman, who has been Professor of Neurology at George Washington University School of Medicine since 1927 and lecturer in neuropathology at the U. S. Naval Medical School since 1924, was born in Philadelphia, Pa., November 14, 1895. He received his A.B. degree from Yale in 1916 and his degree in medicine from the University of Pennsylvania in 1920. He was anatomist at the Philadelphia General Hospital in 1920–21 and assistant pathologist in 1923. In 1923–24 he studied neurology in Paris and Rome. He received an M.S. degree from Georgetown University in 1929 and a Ph.D. in 1931. He is a diplomate of the National Board of Medical Examiners and the American Board of Psychiatry and Neurology.

Dr. Freeman began medical practice in Washington, D. C. in 1926. He was director of laboratories at Saint Elizabeths Hospital from 1924 to 1933 and is now consulting neurologist. He is also attending neurologist at Gallinger Municipal and George Washington University Hospitals.

Dr. Freeman holds membership in many scientific organizations. He became an Associate Member of the Medical Society of the District of Columbia in 1927 and was elected to Active Membership in 1930. He is also a member of the American Medical Association, the American Neurological Association, the American Board of Psychiatry and Neurology, the American College of Physicians, Philadelphia Neurological Society, Washington Society of Nervous and Mental Diseases, Washington Society of Pathologists, and the Washington Academy of Medicine. He was formerly corresponding member of the Estonian Neurological Society. Dr. Freeman has held various offices in these societies. He has been Secretary of the American Board of Psychiatry and Neurology since 1935; President of the Washington Society of Pathologists in 1929; and President of the Washington Society of Nervous and Mental Diseases in 1931. He was Chairman of the Section on Nervous and Mental Diseases of the American Medical Association in 1930–31. At present he is serving the Medical Society of the District of Columbia as a member of the Subcommittee on Mental Health.

The American Medical Association awarded him a bronze medal for his distinguished services in 1931. He is the author of a book on "Neuropathology," published in 1933, and he has been a contributor for many years to numerous scientific publications.

War Section

MEMBERS RECENTLY COMMISSIONED AND PROMOTIONS

Dr. James N. Greear, Jr., President-elect of the Medical Society, entered military service September 1, 1943. He was commissioned Lieutenant Colonel in the U. S. Army and was assigned to duty at the Lovell General Hospital, Fort Devens, Massachusetts. Recently he has been transferred to the Valley Forge General Hospital at Phoenixville, Pennsylvania.

Dr. Howard F. Kane, Professor of Obstetrics and Gynecology at George Washington University School of Medicine, has recently been commissioned Commander in the U. S. Naval Reserve. He has been assigned to active duty at the U. S. Naval Hospital, San Diego, California.

Other members in service who have not been previously listed in the MEDICAL ANNALS are C. Willard Camalier, Jr., Richard B. Castell, John L. Conley, Max Feldman, Wesley Fry, Allan E. King, Walter J. Romejko and Samuel Shwartz.

Among promotions in rank which have come to the attention of the Editorial Board in recent months are the following:

Victor R. Alfaro, from Captain to Major
Thomas Bradley, from Captain to Major
Milton C. Cobey, from Captain to Major
Francis T. Coleman, from Captain to Major
Karl C. Corley, from First Lieutenant to Captain
Allen S. Cross, from First Lieutenant to Captain
Irvin Feldman, from Lieutenant to Lieutenant Commander
Charles E. Fierst, from Captain to Major
Mervin W. Glover, from First Lieutenant to Captain
Edward J. Grass, from Major to Lieutenant Colonel
Milton M. Greenberg, from Lieutenant to Lieutenant Commander
Donald W. Ingham, from Captain to Major
Edward A. Kelly, from Captain to Major
Don S. Knowlton, from Commander to Captain
Henry T. Kulesher, from First Lieutenant to Captain
Philip Litvin, from Captain to Major
John Minor, from Lieutenant Colonel to Colonel
Raymond W. Murray, from Lieutenant Commander to Commander
George W. Reeves, from First Lieutenant to Captain
George V. Simpson, from Major to Lieutenant Colonel
Robert L. Simpson, from First Lieutenant to Captain
Joseph J. Wallace, from Captain to Major

LETTERS FROM PHYSICIANS IN THE SERVICES

From reports received at the Medical Society's office it appears that letters from physicians in the armed forces are widely read by their colleagues at home. Disappointment has been expressed that they have not appeared in every issue of the MEDICAL ANNALS. Readers can be assured that editors are allotting as much space as they find possible to these communications and will continue to do so.

From Lt. Col. Edward C. Morse, A.P.O. 366, ℅ Postmaster, New York, N. Y.:

I think it is of interest to note that of the several medical corps officers in this hospital, no two are from the same medical school. We have, however, two from Washington, 1st Lt. Clyde Reeves and myself. Needless to say, we, as are all of us, are quite busy.

The summer here in North Africa is delightful but we can't say the same for the winter. Swimming in the Mediterranean is wonderful, when we can get it.

From Captain John D. Hand, Jr., A.P.O. 763, ℅ Postmaster, New York, N. Y.:

Dear Mr. Wiprud: I have been doing anesthesia here in

North Africa and it is not like anything at home. Half my time I have to spend improvising equipment to use. We are set up in tents but despite this fact we are doing good surgery and medicine. Living conditions are anything but good, but most of us have made the necessary adjustments. Bob Hope, who was recently here, gave the best description of this country that I have yet heard—and in very few words—he calls it "Texas with Arabs."

From Major Edward A. Kelly, Flight Surgeon, Eglin Field, Florida:

Dear Mr. Wiprud: I have really enjoyed your letters. They are very newsy and really give me all the news from Washington, D. C. I used to gripe about D. C. when I was practising medicine, but so long as I live I will never say an unkind word about D. C. because that is heaven.

Probably have received all the mail from the District Medical Society but it surely goes around the world first. It usually goes to Randolph Field, Kelly Field, Midland Field, Fort Bragg and finally Eglin.

Was particularly interested in Paul O'Donnell and Stafford Hawken. Had a letter from John Finnegan who is at the Miami Base Hospital.

I was promoted to Major on July 6, 1943 and it sure was a thrill to replace the bars with gold leaves. I am the Flight Surgeon here and at this time I am doing all the refractions for glasses.

From Captain W. J. Tobin, Fort Benning, Georgia:

My dear Mr. Wiprud: After a year and a half away from Washington I have finally gotten down to writing you a few lines.

Time certainly passes quickly. It seems but yesterday that I left Washington.

It has been really grand receiving the *Medical Annals* regularly and your little informal "information sheets" every now and then.... Only through the medium of the *Annals* and your informal news sheets am I able to keep up with my confreres in the Capital City, and I might add, it is nice to learn where they are, what they are doing, and so on.

Very soon the 15th Annual Scientific Assembly of the Society will be held. Would that I could be there. I will be there in "spirit" if not in "body."

I am scheduled to give a little paper on "Parachute Injuries" at the annual meeting of the Association of Military Surgeons in Philadelphia next month so I will try to spend at least a few hours in Washington, probably on my way back to Georgia.

Needless to say I am looking forward to the time when I can return to Washington but not until this war is ended in victory for us.

From Captain I. Shulman, Utica, New York:

Dear Secretary: I have just received your letter dated June 2, and enjoyed it very much. The idea of keeping us, who are in the armed forces, informed of the changes taking place at home is an excellent one and to be continued. I note that you have my overseas address and so this letter has been chasing me for the past two months. It is true, I have been in North Africa and have been through some exciting times. Now that I am back in the States I suppose I should expect to receive a bill for dues for this year. This I will be glad to pay. It is perhaps unusual for you to have someone say that but you only begin to appreciate your own country when you have left it.

From Captain John B. Smith, A.P.O. 758, % Postmaster, New York, N. Y.:

Dear Sir: Have covered some territory since I left the States eight months ago. First Africa and then Sicily. In Africa we took part in the battles of Sbeitla, Beja and Mateur. At the latter two places we were the first hospital behind the lines, a matter of some eight or ten miles. A prominent General was one of our patients.

Was on hand to see the enemy stream into prison camps after the fall of Bizerte, a sight I shall never forget. Also had the opportunity to visit Oran, Bizerte, Tunis, Carthage and many other interesting places.

We arrived in Sicily a few days after the invasion and have been in the thick of things here. Sicily is a beautiful country but that is about all we can say for it. The question in our minds now is—where to next?

I have met only one physician in the service from Washington, Captain DeVito. However, I am constantly on the lookout for them.

Keep the letters and the *Annals* coming our way.

A. M. A.'S NEW COUNCIL ANNOUNCES POLICIES

The following statement of general policies has been adopted by the recently organized Council on Medical Service and Public Relations of the American Medical Association:

1. The Council on Medical Service and Public Relations recognizes the desirability of widespread distribution of the benefits of medical science; it encourages evolution in the methods of administering medical care, subject to the basic principles necessary to the maintenance of scientific standards and the quality of the service rendered.

It is not in the public interest that the removal of economic barriers to medical science should be utilized as a subterfuge to overturn the whole order of medical practice. Removal of economic barriers should be an object in itself.

It is in the public interest that the standards of medical education be constantly raised, that medical research be constantly increased and that graduate and postgraduate medical education be energetically developed. Curative medicine, preventive medicine, public health medicine, research medicine, and medical education, all are indispensable factors in promoting the health, comfort and happiness of the nation.

2. The Council through its executive committee and secretary shall analyze proposed legislation affecting medical service. Its officers are instructed to provide advice to the various state medical organizations as well as to legislative committees concerning the effects of the proposed legislation. It shall likewise be the duty of its officers to offer constructive suggestions to bureaus and legislative committees on the subject of medical service.

3. The Council approves the principle of voluntary hospital insurance programs but disapproves the inclusion of medical services in those contracts for the reasons adopted by the House of Delegates at the 1943 meeting.

4. The Council approves voluntary prepayment medical service under the control of state and county medical societies in accordance with the principles adopted by the House of Delegates in 1938. The medical profession has always been very much opposed to compulsory health insurance because (1) it does not reach the unemployed class; (2) it results in a bureaucratic control of medicine, and interposes a third party between the physician and the patient; (3) it results in mass medicine which is neither art nor science; (4) it is inordinately expensive, and (5) regulations, red tape and interference render good medical care impossible. Propaganda to the contrary notwithstanding, organized medicine in general and the American Medical Association in particular have never opposed group medicine, prepayment or non-prepayment, as such. The American Medical Association and the medical profession as a whole have opposed any scheme which on the face of it renders good medical care impossible. That group medicine has not been opposed as such is evidenced by the fact that there are many groups operating in the United States which have the approval of the medical profession, and members of these groups are and have been officials in the national and state medical organizations. That group medicine is the Utopia for the whole population, however, is not probable. It may be and possibly is the answer for certain communities and certain industrial groups if the medical groups are so organized and operated as to deliver good medical care.

5. The Council believes that many emergency measures now in force should cease following the end of hostilities.

6. The Council believes that the medical profession should attempt to establish the most cordial relationships possible with allied professions.

7. There is no official affiliation between the American Medical Association and the National Physicians' Committee. However, since it is the purpose of the National Physicians' Committee to enlighten the public concerning contributions which American medicine has made and is making in behalf of the individual and the nation as a whole, it is the opinion of the Council that the medical profession may well support the activities of the National Physicians' Committee and other organizations of like aims.

8. American medicine and this Council owe a responsibility to our colleagues who are making personal sacrifices to answer the call of the armed forces. Therefore, the Council expresses the desire to coöperate with the medical committee on postwar planning in order to assist our colleagues in reëstablishing themselves in the practice of medicine, and in the preservation of the American system of medicine.

MEETINGS

Wednesday, December 8

The Washington Heart Association will sponsor the following program:

1. "Pulmonary Embolism and Infarction with Applied Venography," COLONEL JOHN T. KING, M.C., U.S.A., Associate Professor of Medicine, Johns Hopkins University School of Medicine, AND CAPTAIN ANDREW G. PRANDONI, M.C., U.S.A.
2. "Coronary Insufficiency," LT. COMDR. HOWARD G. BRUENN, M.C., U.S.N.R., Instructor in Medicine, Columbia University College of Physicians and Surgeons (on leave of absence)

Wednesday, December 15

The following program has been arranged: "Penicillin and the Treatment of Infection," CHARLES F. CHURCH, M.D., New York City.

WOMAN'S AUXILIARY NEWS

The year 1943–44 should prove to be one of the most interesting and active years of the Woman's Auxiliary to the Medical Society of the District of Columbia. Its officers and committee chairmen are alert women who fully realize the importance of purposeful activities.

The officers of the Auxiliary are as follows:

Mrs. Fred R. Sanderson, *President;* Mrs. Leon A. Martel, *First Vice President;* Mrs. Charles H. McEnerney, *Second Vice President;* Mrs. J. Chester Brady, *Recording Secretary;* Mrs. Edward J. Cummings, *Corresponding Secretary;* Mrs. Thomas Crisp, *Treasurer;* Mrs. Edward L. Morrison, *Parliamentarian;* Mrs. Albert E. Marland, *Historian.*

The President has appointed the following members of the Auxiliary to work with her as Chairmen of Standing Committees:

Mrs. Henry A. Hornthal, *Membership;* Mrs. John J. Shugrue, *Ways and Means;* Mrs. A. Magruder MacDonald, *Program;* Mrs. Leo Brison Norris, *Social;* Mrs. Edgar E. Quayle, *Publicity;* Mrs. George H. Crofton, *House;* Mrs. Frederick C. Fishback, *Public Relations;* Mrs. James N. Greear, Jr., *Philanthropic;* Mrs. Harry F. Anderson, *Educational;* Mrs. Arch L. Riddick, *Liaison;* Mrs. William P. Herbst, Jr., *Bulletin and Hygeia;* Mrs. Charles H. McEnerney, *Special Committee for Red Cross.*

A number of Auxiliary members assisted the Medical Society during its 15th Annual Scientific Assembly, held at the Mayflower Hotel, September 30 to October 2. Those in attendance at the Nutrition Exhibit and Demonstrations were Mmes. Norris, Shugrue, Herbst, Cummings, Brady, Crofton, Crisp, Fishback, Harry S. Lewis, Jesse T. Mann and Oscar B. Hunter. Mmes. McEnerney and MacDonald were in charge of the booth where insignia were sold for the benefit of the Medical and Surgical Relief Committee of America. Those who assisted at the reception held on the evening of October 2 in honor of the Surgeons General of the Army, Navy and Public Health Service were Mmes. Norris, Greear, Fishback, Quayle, MacDonald, Shugrue, Thomas E. Neill and Samuel A. Alexander.

At the first regular meeting of the Auxiliary, October 13, $120 was donated to the Community War Fund and $105 was donated to purchase Red Cross Christmas boxes for American prisoners of war. An entertaining and instructive skit, entitled "The Case of Mary Jones," was presented, which portrayed Red Cross volunteer special services.

MRS. EDGAR E. QUAYLE
Publicity Chairman

MEMBERSHIP

The following applicants for membership were duly elected to membership at the business meeting, November 3, 1943:

Active Members

Arthur Abby Davis, 1726 Eye Street, N.W.
David Franklin Hodge, 900 17th Street, N.W.
Leland S. Madden, 1463 Rhode Island Avenue, N.W.

Associate Member

John Elwood Knight, Warrenton, Virginia

The following applicants for membership will be voted on at the business session, December 15, 1943:

For Active Membership

Abraham Robert Abarbanel, Long Island College of Medicine—1936
Philip S. Arthur, Georgetown University—1938
Ervin Newton Chapman, George Washington University—1942
Frederick Young Donn, Jr., George Washington University—1941
John Francis Donahue, Marquette University—1940
Harold Y. Finck, Georgetown University—1939
Milton L. Goldman, George Washington University—1938
Roy George Klepser, University of Michigan—1939
Vasilios Simos Lambros, Georgetown University—1939
John William Mahoney, Georgetown University—1926
Benjamin L. Naiman, University of Maryland—1910
Bernard E. Nunez, Georgetown University—1941
Rufus Martin Roll, Johns Hopkins University—1938
Jacob S. Rosenthal, Tulane University—1915
Robert C. Rush, Georgetown University—1940
Erich W. Schwartze, Rush Medical College—1914
Myer Harold Stolar, Georgetown University—1941
Reuben Edwin Stone, St. Louis University—1927
Amanda Louise Stoughton, Johns Hopkins University—1927
William Robert Stovall, Baylor University—1933
James M. Suter, George Washington University—1934
Lawrence J. Thomas, George Washington University—1938
Geneva Dye Turner, George Washington University—1933
Leila Hulbert Wells, George Washington University—1941

For Associate Membership

Leigh Cole Fairbank, D.D.S., Georgetown University—1912
William H. Spinks, National Homeopathic Medical College—1894

On The Home Front

The Salmon Committee on Psychiatry and Mental Hygiene announces that **Major Abraham Arden Brill, M.C., U. S. A.,** will be the lecturer for the eleventh series of the Thomas William Salmon Lectures. The subject selected this year, "The Psychotherapeutic Contribution to Psychiatry," will be presented in three lectures on Friday evenings, November 5, 12 and 19, in Hosack Hall of the New York Academy of Medicine, 2 East 103rd Street, New York City. Major Brill is Lecturer in Psychoanalysis and Abnormal Psychology at New York University, Lecturer in Psychoanalysis and Psychosexual Sciences at Columbia University, and Consultant for the Manhattan Hospital in New York.

The Society's new **Nominating Committee** was selected by ballot this year, the following members of the Society receiving the highest number of votes: Frederick O. Coe, Sidney C. Cousins, Oscar B. Hunter, Margaret M. Nicholson, E. Clarence Rice, Howard H. Strine, Jr. and John deB. Wynkoop. The Committee met November 1 to organize and to select nominees for successor to Lt. Comdr. Raymond T. Holden, who resigned from the Executive Board on July 21, 1943, when he was ordered overseas. Dr. Coe was made Chairman of the Committee and Dr. Nicholson, Secretary. The Committee presented their nominees at the Society's business meeting, November 3, and **Dr. Roger M. Choisser** was elected to fill the unexpired term of Dr. Holden on the Executive Board.

The Clinico-Pathological Society held its first meeting this fall at the Kennedy-Warren Apartments, October 19. Dr. Henry L. Darner was host to the group. A paper entitled, "Lessons for Physicians from the Military Mobilization," was read by Dr. Arthur C. Christie. New officers were elected for the coming year as follows:

Dr. Charles P. Howze, *President*; Dr. Harry H. Kerr, *First Vice President*; Dr. Bernard W. Leonard, *Second Vice President*; Dr. Henry L. Darner, *Secretary-Treasurer.*

CALENDAR OF OCTOBER MEETINGS

October 7	Section on Neurology and Psychiatry Committee on Medical Service
October 8	Sports Committee
October 13	Scientific Meeting of Society (Davidson Lecture)
October 15	Procurement and Assignment Committee
October 18	Joint meeting of Executive Board and Committee on Public Policy
October 19	Section on Pediatrics
October 25	Executive Board
October 26	Subcommittee on Tuberculosis
October 27	Scientific Meeting of Society
October 28	Sports Committee
October 29	Committee on Public Policy
October 30	Section on Pathology and Laboratory Medicine

The second meeting of the Society was held November 2 at 2238 Que Street, N.W., with Dr. William B. Marbury as host. Brigadier General Hugh J. Morgan, M.C., U. S. A., discussed "Medicine Overseas."

The Forty-eighth Annual Session of the American Academy of Ophthalmology and Otolaryngology was held at the Palmer House, Chicago, October 10 to 13. **Captain Don S. Knowlton, M.C., U. S. N.,** who commanded the first medical battalion on Guadalcanal, addressed a joint session on Sunday afternoon on the subject, "Medical Men on Guadalcanal."

Captain Irvin Hantman, M.C., U. S. A., presented one of the 1943 Graduate Lectures, participating as group leader of an instructional course. He is now on duty at the Station Hospital, Spokane Army Air Field, Spokane, Washington.

Others from Washington who attended the meeting were Drs. Victor R. Alfaro, Earle G. Breeding, Louis S. Greene, Leroy L. Sawyer, Jr., G. Victor Simpson, Oscar Wilkinson and Richard W. Wilkinson.

Those who attended the **International Medical Assembly of the Inter-State Post Graduate Medical Association of North America** held in Chicago, October 26–29, report an excellent program and attendance. **Surgeon General of the Army Norman T. Kirk** spoke on "Medical Department Activities on Our Various Battle Fronts during the Present War." "Coördinating Medical Problems with Tank Warfare" was the subject of an address by **Colonel Daniel L. Borden, M.C., U. S. A.**

St. Elizabeths Hospital Medical Society met at the Red Cross House, October 25. Comdr. Francis J. Braceland, M.C., U. S. N., read a paper on "Trends in Psychiatric Problems."

The Maryland-District of Columbia Hospital Association concluded its two-day convention at the Washington Hotel, October 22. Surgeon General Thomas H. Parran gave a luncheon address, October 22, on the subject, "Public Health of Tomorrow." Other speakers on the program during the meetings were Dr. Paul C. Barton, Assistant Executive Officer of the War Manpower Commission's Procurement and Assignment Service, Major General Albert W. Kenner, Medical Corps, U. S. Army, and Mr. O. K. Fike, Superintendent of Miami Hospital, Dayton, Ohio, the immediate Past President of the Hospital Association. Mr. Harvey Weiss, Superintendent of Sinai Hospital, Baltimore, took office as President; Mr. P. J. McMillin, Superintendent, Baltimore City Hospitals, was elected President-elect.

Among the new officers elected were the following from the District of Columbia and vicinity: Sister Rosa, Providence Hospital, First Vice President; Mr. J. G. Capossela, Emergency Hospital, Secretary; Mr. J. H. Niess of Washington Sanatarium and Hospital, Dr. John Orem of Sibley Memorial Hospital, and Mr. J. Dewey Lutes of the Suburban Hospital, members of the Board of Trustees. Mr. Caposella was elected Delegate to the House of Delegates of the American Hospital Association for the District, and Miss Mattie M. Gibson of Children's Hospital was chosen alternate.

Students at **St. Elizabeths School of Nursing** are now enrolled in the U. S. Cadet Nurse Corps. The present enrollment is 108. Plans are under way for an accelerated program of instruction with a possible maximum enrollment of 185. St. Elizabeths Hospital offers special courses in psychiatric nursing in addition to providing training for graduate registered nurses.

NEW HOSPITAL TO OPEN

Suburban Hospital, 8600 Georgetown Road, Bethesda, Md., will open on December 1 for admission of medical patients and out-patient service. Those physicians who anticipate using the Hospital will please write to Mr. J. Dewey Lutes, Superintendent, for application for courtesy privileges.

Drs. Charles B. Campbell and Edgar M. McPeak were appointed Delegates to the Federation of Citizens' Associations of the District of Columbia at the business meeting of the Society, November 3. At the same meeting the Society approved the action of the Executive Board in appointing **Mr. Warren E. Magee** as Acting Counsel for the Society following the death of Mr. Charles S. Baker.

Dr. Claude Moore has been selected to represent the American College of Radiology, the Radiological Society of North America, and the American Roentgen Ray Society at the Inter-American Congress of Radiology in Buenos Aires, Argentina, in November. Dr. Moore is Councillor for the American College of Radiology for the District of Columbia.

Captain Don S. Knowlton, M.C., U. S. N., was one of the speakers at the Symposium on War Medicine sponsored by the Association of Military Surgeons of the United States at the Bellevue Stratford Hotel, Philadelphia, October 21–23.

Parke, Davis and Company announces the appointment of **Dr. Charles F. McKhann** as Assistant to the President beginning October 15. Dr. McKhann has held the positions of Professor of Pediatrics and Communicable Diseases at the University of Michigan School of Medicine and Professor of

Maternal and Child Health in the School of Public Health. From 1936 to 1940 he was Associate Professor of Pediatrics and Communicable Diseases at Harvard Medical School and Harvard School of Public Health. Since 1930 he has conducted and directed research on communicable diseases, immunology, renal diseases, nutritional diseases, and on certain phases of toxicology. He developed and introduced immune globulin and has contributed to the development of several other products.

JOSEPH MILTON HELLER, M.D.

(1872–1943)

Colonel Joseph Milton Heller, Medical Reserve Corps, U. S. Army, well known in Washington as a former Army surgeon, died October 11, 1943, at the U. S. Naval Hospital, Bethesda, Md., following a brief illness. He was a veteran of both the Spanish-American War and World War I.

Colonel Heller was born January 29, 1872, in Staunton, Virginia. He received his degree in medicine from Georgetown University in 1896, and was later enrolled for postgraduate study at New York Polyclinic Hospital and Medical School.

Four days before war was declared on Spain in 1898 he was appointed an Acting Assistant Surgeon of the U. S. Army. He was awarded the Silver Star citation for distinguished service at the Battle of Naguilan, Luzon, December 7, 1899, during the Philippine Insurrection. At the age of 28 he was commissioned a Major and Surgeon of the U. S. Army, the youngest officer in the Medical Corps at that time to hold this rank. For his services in maintaining a successful quarantine during the Philippine cholera epidemic in 1902 he was commended by President Taft, who was then Governor General of the Philippines.

He began private practice of medicine in Washington in 1903, specializing in internal medicine. During his previous military service he had gained firsthand knowledge of tropical diseases during a visit to China and Japan; from 1904 to 1914 he was Professor of Tropical Medicine at George Washington University.

In 1917 he returned to active duty in the U. S. Army for service in World War I with the commission of Major. He served as Regimental Surgeon for the 80th Field Artillery, as Division Surgeon of the 90th Division, and as Commanding Officer of the Base Hospital at Fort Riley, Kansas, General Hospital No. 23 at Hot Springs, N. C., General Hospital No. 22 at Philadelphia, and as Assistant to the Commanding Officer of the General Hospital at Fort McHenry, Baltimore. He was promoted to Lieutenant Colonel in 1919 and to Colonel in 1922.

Colonel Heller served as Surgeon General of the Military Order of the World War since 1938, as Surgeon General of the Military Order of Foreign Wars from 1917 to 1923, and as National Secretary of the Military Order of the Carabao since 1910. Membership in other military organizations included the American Legion, United Spanish War Veterans, Naval and Military Order of the Spanish American War, Association of Military Surgeons, Association of War Surgeons, Military Order of Foreign Wars, and the Army and Navy Club.

He was an Affiliate Fellow of the American Medical Association. He became an Active Member of the Medical Association of the District of Columbia in 1898 and of the Medical Society in 1908, with Life Membership in the latter dating from January 1, 1939.

Surviving are his wife, Mrs. Renee Manning Heller, who resides at 1028 Connecticut Avenue, N.W., and his sister, Mrs. Carrie Wolfermann of New York City.

THOMAS AUSTIN POOLE, M.D.

(1873–1943)

Dr. Thomas Austin Poole, an Active Member of the Medical Society of the District of Columbia, died October 5, 1943, in Emergency Hospital. He had been in ill health for some time.

Dr. Poole was born in Virginia, October 17, 1873. He graduated in medicine from the University of Baltimore in 1898, following which he practiced medicine in Baltimore for two years and for seven years in the Bahamas, West Indies, under the British Government. In 1909 he was licensed to practice in the District of Columbia.

Until recently he had maintained his office in the Medical Science Building at 1029 Vermont Avenue, where he specialized in otolaryngology, and particularly in sinus infections. His research in this field brought him international notice and he traveled to England and France in 1932 to explain his theory, that no two persons can have the same sinus cavity formations, to the police authorities of those countries.

Dr. Poole was elected to Active Membership in the Medical Association of the District of Columbia in 1910 and in the Medical Society in 1911. He was a Fellow of the American Medical Association.

Surviving is his wife, Mrs. Margaret E. Poole, who resides at their home at 3610 O Street, N.W.

ALES HRDLICKA, M.D.

(1869–1943)

Dr. Ales Hrdlicka, internationally known anthropologist, an Associate Member of the Medical Society since 1916, died September 5, 1943, following a brief illness. Commenting on his passing the *Washington Star* of September 7 said, "The world of science has lost one of its greatest leaders in the death of Dr. Ales Hrdlicka."

Born March 30, 1869, in Humpolec, Bohemia, in what was part of Czechoslovakia before the war, Dr. Hrdlicka when he was thirteen years old emigrated to America with his father. Through the friendship of a physician he entered the medical profession, graduating from New York Eclectic College in 1892 and receiving a second degree in medicine two years later from the New York Homeopathic College.

In 1896 he was appointed Associate in Anthropology to the New York State Pathological Institute, but before accepting the post went to Europe and studied anthropology and psychiatry for several months at the University of Paris and Anthropological School. He organized the Division of Physical Anthropology at the Smithsonian Institution, serving as Assistant Curator from 1903 to 1910, and as Curator from 1910 until his retirement last year.

Beginning in 1898 he led annual expeditions to far places where he unearthed and studied skeletons of prehistoric men and the higher Primates. His travels took him to five continents. He founded and edited the *American Journal of Physical Anthropology* and was a prolific writer on scientific subjects. He published a number of books and reports on anthropological and related subjects.

Dr. Hrdlicka was a member of a great many scientific organizations in this country and abroad, and held the highest office, that of president, in several of them, including the American Anthropological Association, 1925–26; the American Association of Physical Anthropology, which he also helped to found, 1928–32; and the Washington Academy of Sciences, 1928–29. The Huxley Memorial Medal was awarded to him in 1926 by the Royal Anthropological Institute of Great Britain and Ireland. In 1924 Mme. Veverka, wife of the Minister of Czechoslovakia, painted his portrait to be hung at the University of Prague, which he had assisted with gifts and which had awarded him the honorary degree of Doctor of Science in 1920.

His first wife, Marie S. Dieudonne, whom he married in 1896, died several years ago. He is survived by his second wife, Mrs. Mina Hrdlicka, residing at 2900 Tilden Street, N.W., and three brothers, Henry, Maxmilian and Joseph Hrdlicka, all of New York City.

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combat areas. It is vivax malaria that is not controlled by suppressive treatment; it is vivax malaria that recurs month after month in spite of present therapy; and plasmochin has not influenced the vivax infections.

The various species of malaria infection must receive more attention. Malaria is not one disease but three diseases distinctly different in many aspects. The treatment that will give good results with falciparum infection will not necessarily succeed in vivax infection. Either atabrine or quinine will arrest the clinical symptoms, but that alone is no longer sufficient for our needs.

There will be a large number of malaria cases encountered during this war and returning after combat has ceased. On the basis of present treatment, recurrent cases may be expected for a few years after the last infection has been acquired. Our malaria control efforts are greater now than in previous military operations and will produce results. A new drug which will cure malaria is needed; it may be found.

Laboratory evidence of cure is being investigated; if it is found, those who are cured can be separated from those who will relapse and thus get some men back to permanent duty at an earlier date.

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by the men of the Navy and the Public Health Service during the last pandemic in Boston and San Francisco. Human transmission was attempted; many think, on account of an early report given wide circulation, that these experiments were negative. They were not. That they were so largely negative is, however, perhaps more striking than that a few succeeded, when one thinks of the tremendous infectiousness of the causative agent in this pandemic. One hundred and forty-three attempts were made without success to transmit influenza by means of throat secretions from persons sick with the disease to volunteers. Only three apparently succeeded.[11] Any trials at transmission during a real pandemic should be undertaken with the knowledge that some infections apparently transmissible in nature with the utmost of ease are very difficult to transmit experimentally.

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patient stricken with pneumonia now has enormously increased chances of winning the battle under prompt and skillful therapeutic generalship, whether the strategy be an attack on the infecting agent or a defense of the fortress of resistance of the host or both. Pneumonia still presents a challenge, and the physician must be a keen differential diagnostician, an expert immunologist, and a chemotherapeutist to achieve the most favorable results.

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represented was the Minnesota State Medical Association. Some twenty-five Senators and Congressmen accepted invitations to be present. As might be expected, the Wagner-Murray-Dingell bill came up for discussion, which, it was reported, was very frank.

In the opinion of this Observer, groups in this section of the country might well follow the lead of their Midwestern colleagues. For only through a frank exchange of views will our legislators have an intelligent understanding of the problems confronting their constituents and how they can best serve them.

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INJURIES OF THE URINARY TRACT*

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THE genitourinary tract is involved in approximately 1 per cent of battle injuries. Kidney, ureter and bladder wounds and intra-abdominal injuries are usually concomitant. Therefore, these cases are handled by the abdominal surgeon with or without the assistance of the urologist. The difficulty of making the differential diagnosis of urological injury warrants consideration of the methods used.

Patients suffering from wounds of the urological tract are severely injured. Since localizing signs are obscured by the severity of the external injury and the profound state of shock, a systematic approach is advisable.

Inspection will reveal the external defect, the site of entrance, and perhaps the site of exit of the missile. Contusion over one kidney does not necessarily indicate rupture of the kidney on the same side. We have seen rupture of the opposite kidney when it appeared certain that the kidney beneath a greatly contused area over the lower ribs was injured.

Bleeding from the external urethral meatus indicates injury of the anterior urethra anterior to the external sphincter. The finding of clear urine on the clothing of the injured man apparently rules out injury to either the anterior or posterior urethra or bladder.

Careful palpation will exclude traumatic injury to the penis and scrotal contents. The perineum and the bulb of the urethra should be carefully inspected and palpated for signs of bleeding or extravasation of urine.

The most common urological complication of fractured pelvis is rupture of the membranous urethra. This is a fairly common injury in this war when men are run over by tanks and tractor treads. No external signs except for local ecchymosis are visible. However, the diagnosis may be made quite certain after digital rectal examination. The membranous urethra passes through the triangular ligament just behind the symphysis pubis. This portion of the urethra is readily palpated for a distance of 1 cm. between the anal sphincter and the prostatic apex. It stands out as a cord about the size of a lead pencil in the midline with a depression on either side which will admit the tip of the index finger. When the membranous urethra cannot be felt and the palpating finger reaches the posterior surface of the symphysis pubis, the urethra must be ruptured. The prostate may be dislocated upward. Extravasation of blood or urine into the layers of the triangular ligament obliterates the fossae on either side of the membranous urethra. Occasionally a large extravasation or clot fills the space formerly occupied by the prostate.

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When injury of the membranous urethra or bladder is suspected, the patient must be cautioned not to urinate, lest he pass the contents of his bladder into the perivesical tissues. When such injury is suspected, the passage of a "diagnostic catheter" is indicated. A Nélaton or soft rubber catheter should be used. By digital rectal palpation the catheter may be felt as it passes through the membranous urethra. Should the membranous urethra be ruptured the tip of the catheter would be felt close to the rectum and usually away from the midline. If clear urine is obtained from the bladder, injury of the bladder or upper urinary tract may tentatively be excluded.

The finding of bloody urine in the bladder may indicate either a partial rupture of the bladder, a tamponaded bladder wound, or injury to the upper urinary tract. It may be stated that, as a rule, forceful expulsion of urine through the catheter excludes bladder rupture. I have seen 1,000 c.c. of urine obtained from the peritoneal cavity of a patient in whom the catheter was passed through a rent in the posterior bladder wall. The operator reached the erroneous conclusion that bladder rupture had been ruled out. Had the bladder been palpated or percussed before the catheterization the error would have been apparent. It is frequently easier to accurately palpate the distended bladder by rectum than by suprapubic palpation or percussion.

The prime consideration in the treatment of wounds of the bladder or urethra is drainage of the bladder to prevent extravasation of urine. Secondarily the wound should be repaired. It is far better to drain on suspicion of injury than to allow extravasation with its great morbidity and added mortality. Suprapubic cystostomy may save the patient's life. If the injured patient is in good condition and other complications do not prevent, repair of the defect of the urethra or bladder should be undertaken immediately.

Early repair of a ruptured membranous urethra will result in less scar formation and a more readily dilated stricture. At the suprapubic approach blood or urine may be encountered in the prevesical space of Retzius. Adequate drainage of this space must be provided. It may be practicable immediately to pass a catheter through the urethra, threading it through the urethra at the prostatic apex into the bladder. The Foley type of hemostatic bag catheter of 30 c.c. capacity may be used to great advantage in this situation. After insertion of the catheter the bag may be inflated and traction applied to draw the prostate into proper position where it may be sutured to the triangular ligament. However, such protracted procedures may be contraindicated, and the surgeon must be content with simple diversion of the urinary stream and adequate drainage of the perivesical tissues. The repair of the membranous urethra may be undertaken at a later date by the perineal approach as described by Young and illustrated in the motion picture made by the Staff at the Walter Reed General Hospital, Army Medical Center. Five such operations have been done by us in the past year and a half.

Wounds of the bladder involving the peritoneum must be closed immediately and suprapubic drainage established. Drainage of the peritoneal cavity is not indicated in uncomplicated cases.

The diagnosis of ureteral injury may be impossible except by abdominal exploration. Cystoscopy may add to our knowledge of the condition, but injury to intra-abdominal organs is nearly always a complication and abdominal exploration imperative. I have seen 2 cases of ureteral wounds in the past year. Both were recognized at exploration and drainage established, but both patients developed fistulae and will require further surgery by re-anastomosis or nephrectomy. Adequate extraperitoneal drainage is imperative in these cases.

When rupture of the kidney is suspected, considerable information may be obtained from a plain X-ray film of the kidneys, ureters and bladder. The presumptive roentgenographic signs are curvature of the spine toward the affected side, loss of psoas muscle shadow, and loss of the shadow of the renal outline. The later findings may denote extravasation of blood or urine into the perirenal space.

Intravenous urography is indicated for the diagnosis of ruptured kidney. The iodide is fortunately excreted by the damaged kidney. The extravasated iodide may be seen, defective calices visualized, or failure of concentration of iodide noted. This important diagnostic method may serve not only to confirm the clinical impression but also aids definitely in the determination of the type of surgery indicated.

Retrograde urography is not contraindicated in the diagnosis of rupture of the kidney. The use of diodrast, skiodan or hippuran is advised rather than sodium iodide as a contrast medium. These agents are readily absorbed, are of low toxicity, and do not irritate the tissues. However, intravenous urography will usually give sufficient information.

Wounds of the kidney may be suspected from observation of the course of the bullet or missile, from rib injury, from contusion, or from the presence of a mass or tenderness in the costovertebral angle or in the flank. Extravasation of blood or urine from renal injury is limited by the perirenal fascia of Gerota unless this membrane is also torn. Shock may or may not be profound, depending upon the degree of the injury and the amount of hemorrhage. When severe, treatment of the state of shock must be complete before any surgery on the kidney is undertaken.

Renal rupture may occur by passage of a missile, by a blow, or by sudden bending producing compression of the organ. Missiles may injure the renal arteries or veins at the pedicle with resultant gross hemorrhage, or they may perforate the renal cortex with or without serious damage. When severe injury to the renal vessels occurs, nephrectomy may be in order in the emergency. Perforating wounds may be packed, tamponed with a nephrostomy tube, or simply drained. Drainage of all renal wounds which perforate the capsule is indicated.

Ruptures of the kidney produced by compression are classed as pelvic, caliceal and cortical. Pulpifaction of the entire kidney may take place with or without capsular rupture.

Caliceal rupture may not require surgical intervention. Treatment of the shock and complicating conditions and bed rest may go on while the patient is observed for indications for surgery. Cortical ruptures usually require operation, since the capsule is torn and there is the possibility of urinary extravasation. Hemi- or partial nephrectomy may be indicated in certain cases. This is very difficult surgery, and when removal of a portion of the kidney is necessary, care must be taken to make sure that the renal pelvis and ureter will adequately drain the remaining portion of the kidney. I have had to do a secondary nephrectomy in the case of a man who had the lower half of his kidney torn away. The pelvis was also torn so badly that drainage of the upper pole calices was interrupted and a fistula resulted. Pulpified kidneys should be removed.

Exploration of a ruptured kidney is a very difficult procedure. When intra-abdominal injury can be ruled out, I prefer the extraperitoneal flank approach. However, when intra-abdominal injury is suspected, renal exposure can satisfactorily be carried out through the abdominal cavity by incision of the posterior parietal peritoneum, but extraperitoneal drainage must be established.

Fundamental principles in the treatment of genitourinary injuries are diversion of the urine to prevent extravasation, débridement or removal of crushed or devitalized tissues, repair of

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INJURIES OF BONES AND JOINTS*

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I KNOW of no field in surgery which has undergone more drastic changes in recent years than the care of injuries to the bones and joints. The chances and improvements in technic and the management of cases has led to a new outlook on the whole problem. These changes are due largely to the use of internal fixation and the effect of the sulfonamide drugs as a prevention against infection.

In bone and joint injuries we are confronted primarily with the problem of restoration of function. In addition to function there is also the consideration of the restoration to cosmetic perfection, if only for the peace of mind of the patient.

The greatest recent advance in the treatment of injuries to bones and joints is, first, the prevention of shock; second, the prevention of infection in compound wounds; and, third, the early evacuation from the areas of hospital facilities for the relief of congestion.

The conservative treatment of some fractures requires long immobilization in traction, meaning long hospitalization. The newer methods offer at least a relief from this. Russell's traction offers a splendid method of treatment for intertrochanteric fractures of the femur and for fractures of the shaft of the femur, but neither are healed sufficiently for the removal of such traction in less than 10 to 14 weeks.

All cases of fractures and all cases of joint injuries are accompanied by some degree of shock. When there is a compound fracture, shock is usually increased, especially when hemorrhage is added, whether the hemorrhage be external or internal.

The first consideration in cases of severe bone or joint injury is the treatment of shock. Few cases of shock are fatal under the present methods of treatment. It is not uncommon for cases to arrive at a center of treatment, especially compound fractures, in such condition that nothing can be done toward the reduction and care of the fracture until the shock element has been controlled. This requires, first, rest; second, restoration of fluid loss by infusions; third, restoration of blood loss by the administration of plasma or by blood transfusions; and, fourth, the administration of sedatives (usually the morphine derivatives) to lower the general systemic reactions. In shock the blood pressure tends to drop and there is a sensation of cold which should be counteracted by the use of heat. This can best be controlled by hot blankets and hot water bottles.

When shock has been controlled, the case may be treated as a simple or compound fracture, whatever it may be.

Early splinting (first aid) may have a decided bearing on the prevention of shock. However, when bones penetrate the skin and are exposed to contamination from dirt and clothing, it is important that no immediate attempt at reduction of the compound fracture shall be made. It is best to sprinkle the wound and contaminated bone with a sulfonamide drug and splint the limb in a position which will keep the fracture immobilized until it reaches a treatment station, where proper débridement and reduction can be accomplished under aseptic conditions. Compound fractures which reach treatment within 6 hours are considered as "clean" cases. They are closed and sutured and treated expectantly. Those over 6 to 8 hours old when reaching surgery are treated as infected. This means that they are carefully cleaned and reduced but are packed open with vaseline gauze after the instillation of sulfonamide drugs, and are then treated by complete immobilization in plaster or some other form of fixation, depending upon the nature of the fracture.

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Bullet wounds rarely become infected. This is probably because they create so much friction from their rapid travel that the heat sterilizes their path. Bullets are usually not removed unless they interfere in some way with the function and action of muscles and joint or unless they are easily accessible.

Ironically, simple fractures, although they do not involve penetration through the skin, may be most complicated as far as treatment is concerned. However, when there is a communication between the fracture and the outside, special precaution must be taken. Compound fractures must be divided into 4 main classes: (1) those which come under treatment within 6 hours after injury; (2) those which come under treatment over 6 to 8 hours after injury; (3) those in which the compound wound is created by an object penetrating the skin and causing the fracture; and (4) those in which a small puncture wound is caused by penetration of the skin by a spicule of bone from within. All compound fractures or compound joint injuries must be considered potentially infected. In fractures under 6 hours, however, the chance of developing infection in the deeper layers or in the general circulation is at a minimum. Great attention should be paid to the elimination of infection locally. If properly treated, the wound can then be classed, expectantly, as a clean wound. The procedure, nevertheless, requires painstaking care. First, the area around the wound should be shaved of hair and washed or scrubbed with ample quantities of soap and water. The wound should be flushed with 2 or 3 quarts of sterile saline solution, and the skin then prepared for surgery by the use of some non-coagulating antiseptic. Iodine has a tendency to "fix" tissues and thereby seal off infection in the deeper compartments. In our clinic Mercresin is used as an antiseptic for 3 reasons: First, it has seemed to prove a thoroughly efficient antiseptic. This, however, may be augmented by our routine 24-hour preoperative skin preparation in elective cases. It is used also in acute cases with only the immediate preoperative preparation. There have been no infections attributable to skin contamination, or in fact (and I hesitate to say it) any serious infection in compound fractures over a period of 2 years. Second, the edges of the wound should be carefully shaved off in such a manner that there is a minimal loss. This will allow closure of the wound under the least tension. The removal of a strip only 1/32 of an inch in thickness is all that is necessary. The deeper layers of the wound should be débrided and care should be taken that all loose pieces of tissue and bruised fringes be removed. The débridement of exposed tendons, vessels and nerves is particularly difficult and often must be confined to the fragile fibrous tissue which surrounds them. Following débridement there is a repeated flushing of the wound with 2 or 3 quarts of normal saline solution. If there is to be suturing of tendons, nerves or vessels, in the presence of a compound fracture, the surgeon's gloves and all dressings and instruments must be changed after the débridement. The repair is made and the wound is closed as in ordinary surgical procedures. Sulfonamide drugs are used in the wound and orally for 3 to 6 days. In fact, the drug should be started immediately after injury, if possible. It is suggested that the wound be sprinkled only to the extent of a frost covering since all drug in excess of this is wasted.

Refrigeration anesthesia should not be overlooked in the case of some compound fractures and imminent amputations. Refrigeration does not mean freezing. By means of ice packs about a limb which has had a tourniquet applied, the circulation may be kept at status quo for many hours. Pain and sensation are eliminated and the progress of infection stops with the application of the refrigeration treatment. Surgery or amputation may be done without other anesthetic and without pain or loss of blood. Shock is greatly diminished. Since no freezing or "frost bite" exists, the tissues return to their normal state within a short time. Mobile units are now available for ambulances, but cracked ice properly packed about a limb and maintained with rubber sheets will accomplish the same purpose.

The immobilization of fractures, both simple and compound, may require a great deal of skill as well as good judgment on the part of the surgeon.

Just prior to Pearl Harbor there was a general impression among most conservative orthopedic surgeons that internal fixation with metals was a debatable procedure. This was partly because of the electrolytic effect of the metals on bone. With the introduction of Vitallium and stainless steel, both of which were nonelectrolytic, these objections were largely overcome. Internal fixation became more popular. The great mistake which was made in its use, however, was that plates and screws were frequently not strong enough to stand the mechanical stress. Often the screws did not penetrate both cortices of the bone.

If internal fixation is to be used the mechanical requirements must be met. It is often necessary to put plates on two sides of the bone instead of one so that any spring in the plate might be eliminated and immobilization reinforced (Murray).

After the plating enthusiasm came the development of apparatus for the ambulatory treatment of fractures, such as the Roger-Anderson, Stader and Haynes types of apparatus. These were all based on the principle of pin or screw anchorage of the upper and lower fragments, reduction by manual manipulation or by apparatus and maintenance of reduction by the use of extradermal bars or struts between the two. In some instances the technic requires the local incorporation of the apparatus in plaster of Paris, and in others the apparatus is self-sustained and the patient is allowed the use of the limb with the apparatus supporting the fracture area.

Such treatment undoubtedly allows early evacuation of certain fracture cases from congested hospitals but does not in any way decrease the healing time of fractures, and also has its surgical risks. The use of such technic in some instances is quite essential. However, the universal use of this type of treatment must be considered a fad. The majority of fractures can be reduced manually under anesthesia and the reduction maintained in plaster of Paris or splints or dressings with the patient just as ambulatory as possible and safer surgically.

For efficiency and comfort, the exceptions to conservative treatment are in fractures of the neck of the femur, intertrochanteric fracture of the femur, fractures of the shaft of the femur, fractures of the patella, badly comminuted fractures of the tibia, and comminuted fractures of the bones of the forearm.

Fractures of the shaft of the femur in particular, if treated conservatively by traction such as Russell's traction, require long periods of hospitalization (8 to 14 weeks), much of which can be avoided by skeletal fixation. The difference between a period of hospitalization of 10 days and 10 weeks cannot be ignored when conditions demand it. Fractures of the shaft of the femur require firm and rigid fixation. The pull of the adductor muscles alone create a tremendous tendency to outward bowing at the point of fracture and there is a tendency to internal rotation of the distal fragment. The usual 4- or 6-inch plate with screws, even if they penetrate both cortices, is not sufficient to withstand the mechanical strain exerted. It is difficult also to counteract this strain with the Stader and Haynes fixation. It is advisable, if they are used, to insert more screws than you would think necessary. The expected healing time in fractures of the shaft of the femur in adults cannot under any form of treatment be reduced to less than 12 to 16 weeks.

For a long period of time I have been making a study of the statements made in textbooks and the statistics reported in medical journals of the healing time of fractures. The ambition of authors to minimize fracture healing time for the benefit of their prescribed methods of treatment is astounding. Their statistics are certainly very different from mine. Of course, I have seen fractures of the femur in 3-year-olds heal sufficiently for no longer immobilization than 3 weeks, and I have seen extensive callus development in fracture of the humerus in a newborn child in 1 week, but when it comes to adults I feel that they are really "putting out" if the femoral fractures heal in 4 months and the fractures of the humerus in 8 weeks.

Something must be said, however, for the short cuts to early mobilization which may be used in fractures of the clavicle, humerus, olecranon, patella, and the cervical and intertrochanteric regions of the femur. The great majority of clavicle fractures may be treated by the figure of eight dressing, although not strictly "pre-Pearl Harbor." This may be used in young children as a primary dressing or in adults when there is not much hematoma, displacement or swelling. At times it should be preceded by a Velpeau dressing for 6 to 12 days. The figure of eight allows free use of the arms and maintains sufficient traction to accomplish a good reduction in most cases and almost invariably a good functional result. A few cases may require lateral traction in bed for from 3 days to 3 weeks. Most fractures of the clavicle heal solidly in from 5 to 8 weeks.

Speaking of clavicles, insufficient attention has been paid to one of the commonest of injuries sustained by active individuals, that is, separation of the acromioclavicular joint. Since these are not usually demonstrable by roentgenography, they are frequently ignored and a permanent disability may result. If we base our treatment on a healing time of 8 to 12 weeks the results will be better. The scapula must be kept upward and backward during this time, and the clavicle kept down. This can be accomplished by a Velpeau dressing or by a figure of eight dressing with adhesive strapping across the shoulder.

Fractures of the neck of the humerus usually have a forward and inward displacement of the shaft. This may require manipulative reduction, but reduction can usually be maintained by the "pendulum" cast. The amount of tension in the neck-wrist strap is of considerable importance in maintaining position. Motion is started very early in forward flexion and rotation. By the time the fracture is healed (6 to 10 weeks) a full range of motion should have been established.

Fractures of the shaft of the humerus are treated in much the same way, whether they be transverse, oblique or spiral. It is sometimes necessary to add weight at the elbow to increase the pull. Three to 6 pounds is sufficient. A "therapeutic" dislocation of the shoulder joint may occur if too much weight is used.

Fractures of the olecranon should almost invariably be treated by internal fixation. The only exception is when there is no separation of the fragments. Internal fixation allows early mobilization. It may be accomplished either by wiring or by the use of a screw to hold the detached proximal fragment to the shaft of the ulna.

The treatment of patellar fractures has undergone a considerable change in the past few years. Regardless of the type or shape of the fracture it used to be "fashionable" to suture all the fragments together. Now, however, the accepted method of treatment of such fractures is the removal of lesser fragments. If the patella is badly comminuted, the whole thing is removed. This creates a new situation. One is no longer dealing with a fracture but only with the healing of ligamentous structures. Thereby the healing time is reduced and early return of motion is hastened.

Needless to say, everyone is familiar with the nailing of fractures of the neck of the femur. It seems that almost everyone has his own method of doing this nailing. I had mine too, and I thought it was fine until 3 in a row failed. It was an open method which included the splitting of the capsule and digital palpation of the fracture site. It was my impression that the release of the pressure created by blood and synovial fluid might aid fracture healing. The failures to get accurate nailing, I believe, were due to rotation of the head of the femur as the nail was being driven in. I found this method unsatisfactory for two reasons: first, it was undependable, and, second, it could not be taught to the coming generation of staff officers. Therefore, it was abandoned in favor of the cannulated nail method. Following the information given by roentgenograms, 2 bicycle spoke wires are inserted in guess position. A portable X-ray film is then taken in both the anterior-posterior and lateral positions. Quick developing gives a definite picture of the situation, and the nail is driven over the wire which shows the best alignment. If neither is correct, another is driven in the right direction and the nail driven over that. In the meantime the head of the femur is being immobilized by the two wires, and rotation is almost impossible.

There is a factor in the healing of fractures of the neck of the femur, however, which is an unknown factor and which may govern the eventual outcome in spite of the perfection of the nailing, and that is the amount of damage to the nutrient arteries supplying the head. Aseptic necrosis may take place. This has occurred in some cases even after union was shown by roentgenograms. The prognosis in fractures of the neck of the femur regardless of the apparent prospects cannot be determined in less than 10 to 20 months after operation. Fortunately, most of them (70 to 80 per cent) heal without disaster.

Those of us who have dealt with fractures have given a sigh of relief when we discovered by means of X-ray films that we were dealing with an intertrochanteric fracture rather than one of the neck of the femur. We have at least been able to tell the family that it would heal. But we have not been able to tell them how long it would take, and we usually have not been willing to tell them that if corners were cut they would come out with shortening and eversion. For a crowded hospital nothing could be more disturbing than a lot of intertrochanteric fractures in Russell's traction for a period of 8 to 12 weeks each.

This dilemma has also been overcome. Through the efforts of several workers adequate internal fixation has been devised. So far I believe that the best of these is the Neufeld nail. This transfixes the neck of the femur and extends down the shaft for 4 or 5 inches. The shaft portion of the plate is held in place by screws which transfix the femur in such a way as to prevent separation of the plate from the shaft. By this means the patient may be made ambulatory in a short time after operation, and hospital stays reduced from 12 weeks to 1 or 2 weeks.

In conclusion, I would like to bring to your attention again the valuable aid that the sulfonamide drugs have been in combating infection in bone and joint injuries. A new era has been created by them. What should you do in "clean" cases? Should you trust your surgical technic against all hazards, or should you sprinkle a little of the magic powder on the surfaces of the wound "just in case"? I wonder. I have done both.

And lastly, the statistics on tetanus infection as reported from the African war are interesting. Immunization has certainly come to the forefront. There were 13 cases reported, and these were all in the 5 per cent of British troopers who had refused to receive antitetanus immunization. The most stubborn cases of gas bacillus infection seem to respond to penicillin.

THE CIVILIAN PRACTICE OF SURGERY UNDER WAR CONDITIONS*

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EVERYONE knows that many of our surgeons are withdrawn from civil practice to the armed forces and that those remaining behind therefore have a proportionately larger number of patients to care for. Not only is the relative load increased, but the actual total amount of surgical work is also increased. The generally enhanced income of large groups of people enables them to consider elective surgical treatment that they otherwise might have done without. The much larger number of people, many of them inexperienced, who are now employed in industry has augmented the volume of traumatic surgery. Many young men desirous of entering the military services, but prevented by conditions that can be corrected by surgery, are having these conditions operated upon. The net result of these various factors is a greatly increased pressure of work on the civilian surgeon.

What the general public and some of our colleagues in general practice do not fully appreciate is the fact that many of the compensatory elements that normally might be expected to aid in easing the pressure have themselves been thrown out of function by the war. For instance, the surgeon cannot relieve his own responsibilities by delegating more of them to junior men and assistants. This group in the profession is much more heavily reduced than the older surgical group. Instead of increasing the allotment of minor and routine work to juniors, the older men are now finding greatly increased requests for such work coming to them. The larger utilization of nurses, at first advocated as a remedy, is often impossible because of the shortage of nurses and the necessity of using them in their own proper field of activity. Increasing the hours of operating room service so as to make a greater number of hours per day is seriously hampered by the shortage of orderlies and other nonprofessional personnel. Every active surgeon is acutely aware of all these things, and the general profession should recognize them also.

These facts are emphasized, not in a spirit of complaint or recrimination, but so that we may look the situation in the face and adjust ourselves to it as well as we may. One of the measures that seems obvious is to postpone until a less trying time, as much as may safely be done, the elective and minor type of operating. The sebaceous cyst on the scalp of a middle-aged housewife does not have to be removed until the war is over. The simple moles, the clearly benign lipomata, and other similar lesions, all of which in the aggregate take considerable time and effort from surgeons, nurses and operating room personnel can usually wait till peace returns. Many small, easily reducible hernias belong in the same category. Of course, discretion must be exercised in such deferment and the patients emphatically told to report any change in the condition so that careful supervision may be maintained.

Another considerable economy of time and effort may be achieved by reducing or eliminating many of the collateral activities that surgeons have been accustomed to engage in. These activities in peacetime are most commendable. They included such things as attendance of medical meetings, preparing and giving papers, travel to visit outstanding clinics and teachers, and, in general, efforts of an educational and organizational type. Many of these very profitable efforts have already been curtailed voluntarily by the action of medical societies, or by restrictions imposed on travel. I know that some of the leaders of the profession will disagree with me, and I know that my presence here today is inconsistent, when I venture the personal opinion that a further drastic reduction of the time devoted to such affairs is advisable. I am well aware of the great value of these educational meetings, but for the immediate present it seems to me that attending to the day's work is more important than anything else, and that no serious lasting damage will result from the temporary suspension of all but the most necessary meetings. I trust that my kindly hosts of today will understand the reluctance with which I express this opinion.

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* Read at the Fifteenth Annual Scientific Assembly of the Society, October 2, 1943.

A third necessity of the current situation, and one that is so obvious as barely to need mention, is that the surgeon plan his schedule and budget his time to the best advantage. Even the casual chats in hospital corridors with associates and the time wasted by unusually loquacious patients must now be cut to a minimum. I speak from frequent personal experience when I lament the wreckage of a timetable by such incidents and the series of late appointments and frayed tempers that result. Of course, the intrusion of emergencies is even more disastrous, but that is a matter not of our choosing and beyond our control. The other incidents require the development, on the part of the surgeon, of a tact and diplomacy that will equip him to turn aside time-eating irrelevances without laceration to the feelings of his friends and patients.

The surgeon must also remember that he should be considerate not only of his own time but of that of his assistants and helpers. He must remember that house staffs are cut to the bone. If he wishes his patients to have the necessary care he must try to eliminate unnecessary demands on the time of interns and residents. Treatments and examinations that ordinarily would be permissible or desirable, but that do not directly contribute to recovery and that do require the expenditure of much additional time and effort, are best omitted. The surgeon who removes stitches and does dressings in the course of his rounds may lighten materially the burden on his house staff and allow them to function more efficiently at little cost to himself and much closer contact with the detailed progress of his patients.

The surgeon is learning to get along in the operating room with minimum assistance. He is lucky if he has one well-trained resident and a competent operating-room nurse. Frequently the anesthetist is a nurse who is just being trained in her work and is not yet sufficiently experienced to permit the surgeon to exclude from his mind the conduct of the anesthesia. These conditions impose additional mental strain and actual physical difficulty in operating. Such circumstances call for a conscious increase in self-control, steadiness and patience on the part of the surgeon. It will be seen that the stay-at-home surgeons, although spared the physical hardships and dangers that his fellows in the armed forces may encounter, and the even more trying separation from home and loved ones that they must endure, still has his share of the burdens and worries that this war has brought to the entire world. I said that we should not develop a spirit of complaint and self pity. I maintain, however, that we have a right and a duty to protest any stupidity or short-sightedness in the management of our affairs that makes things unnecessarily more difficult, and above all the right to curse deeply and long the men and the circumstances that precipitated this great tragedy.

THE CURRENT STATUS OF BLOOD SUBSTITUTES*

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THERE has been a growing tendency in the last few years to consider, as so-called "blood substitutes," almost any substance which will restore blood volume in the treatment of shock. This is incorrect and has led to misconceptions of the proper uses of these substances. More accurate terminology is needed to facilitate a better understanding of the problems involved.

Blood plasma, serum, and serum albumin serve valuable but limited functions in the restoration of blood volume and cannot actually take the place of a whole blood transfusion. They should be called "blood derivatives," not "blood substitutes." Macromolecular substances, such as pectin and gelatin, concerning which considerable research is being carried out, are not "blood derivatives" and cannot truly be considered as "plasma substitutes." When technics for the preparation of these substances are perfected to the point where a product meets acceptable standards of effectiveness and safety, they may prove, after careful clinical trial, to be very valuable "emergency" substances which will temporarily restore blood volume and tide over an injured patient until adequate amounts of plasma or whole blood can be given. Recent experimental data indicate that gelatin, in particular, shows promise of eventual clinical usefulness.

At the present time, human blood plasma is by far the most valuable of all blood derivatives. One can be reasonably sure that this blood derivative will not be outmoded or replaced by some newer development. May I make it clear at this point that, from the therapeutic standpoint, there is little to choose between plasma and serum. Plasma contains citrate solution and the fibrinogen fraction, while serum contains neither and has a slightly higher protein content per unit volume. Any choice between the two lies in the technic of preparation, which is a problem for the individual supplying laboratory and not for the clinician.

It has now been well established by work done at both the Army and the Navy Medical Schools that plasma, properly prepared according to accepted technical standards, may be preserved in the liquid state at room temperature for as long as 2 years without influencing its value in the treatment of shock or the safety of its administration. The storage temperature should remain between 60° and 80°F., although maximum limits are as low as 55° and as high as 100°F. Below 55°F. fibrin precipitation will occur and above 100°F. protein denaturation takes place rapidly. Blood plasma, regardless of the method of preparation or storage, must always be filtered at the time of administration.

If such liquid plasma is prepared and frozen at −4°F. within 72 hours after the collection of the blood, it may be preserved indefinitely at temperatures of +5° to −4°F. Under these conditions there is no appreciable loss of such thermolabile constituents as complement and prothrombin, and antibody titers are maintained. Frozen plasma must be thawed in a waterbath at 98.6°F. Occasional shaking and circulation of the water speed the process, which requires about 25 to 30 minutes. Massive fibrin precipitation will occur if thawing is attempted below this temperature, and protein denaturation or precipitation appears if done at higher temperatures. After proper thawing, such plasma can be stored for 2 years at room temperature, if desired. However, if the plasma is given to supply complement or prothrombin, it should be administered as soon as possible after restoration to the liquid state. This precaution is not so important if antibodies are the primary consideration, although in most instances it is probably advisable to give complement as well as antibodies.

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Dried plasma offers certain specific advantages. It is the most stable plasma preparation and offers practically no storage problems. It is best utilized if packaged with sterile distilled water, containing 0.1 per cent citric acid, and the equipment for reconstitution and administration, as in the standard Army-Navy package. The buffering action of the citric acid in the distilled water used for reconstitution enables the dried plasma to be reliquefied at a nearly normal pH, thereby preventing the rapid destruction of such labile constituents as complement and prothrombin. So packaged, dried plasma may be stored for as long as 5 years without undergoing significant change, providing it is not allowed to freeze or is not exposed for any length of time to temperatures above 130°F. If the distilled water is above 100°F. at the time of restoration, denaturation or precipitation of the proteins may occur and give rise to serious reactions. Dried plasma, properly prepared and stored, should go back into solution within 3 minutes with only a small amount of shaking, and the gross appearance should be that of an opalescent or turbid solution without gross sediment, precipitation or gel formation. Therefore, the adequacy of preparation and storage can always be judged at the time of reconstitution. The Army-Navy type package constitutes a complete unit, which is stable under a wide range of climatic conditions, and which may be administered promptly anywhere, without regard for hospital facilities. Dried plasma or serum is also advantageous in that it may be reconstituted to a fraction of its original volume if desired and, therefore, administered in a concentrated form. This procedure is of most definite advantage in the administration of convalescent sera. Present data do not indicate that concentrated material has any advantage over citrated plasma in the treatment of shock, unless tissue dehydration is desirable as in certain brain injuries. However, when dehydration is present, the use of concentrated material is contraindicated. In civil life, dried plasma offers no advantage over the combination of liquid and frozen plasma for hospital use. In addition, the dried form is the most expensive and technically more difficult to prepare.

Thousands of units of plasma, prepared in accordance with accepted standards and stored in the liquid, frozen and dried states, have been administered with excellent clinical results and with an incidence of untoward reactions of approximately 1 per cent, consisting only of the pyrogenic or urticarial type.

The value of plasma is most evident in the treatment of shock due to burns and in the emergency treatment of traumatic shock. Since plasma is immediately available and can be given without typing (including Rh), cross matching, or skin testing, it frequently saves lives that would be lost because of the delay usually inherent in the administration of whole blood. Unfortunately, there is no rule or formula by which one can determine the dosage of plasma necessary in a given case. The only safe and practical procedure is to give sufficient plasma to achieve the desired result, namely, restoration and maintenance of normal blood volume. Only if this is done will deaths from shock be avoided.

In shock following burns we have the perfect indication for the use of plasma. These patients lose large amounts of plasma into and from the injured tissue and develop hemoconcentration, but do not lose the cellular elements of blood. Plasma, or serum, offers a physiologic replacement medium. A good rule of thumb is that 1,000 c.c. of plasma should be given during the first 24 hours for every 10 per cent of body surface burned. There is a continuing but diminishing need for plasma therapy during the first few days. In any case, but especially in the more extensive burns, this rule should not be applied blindly, but the patient should be followed carefully to be sure, first, that enough plasma is being given, and, second, to guard against causing pulmonary edema by giving too much too rapidly. Cases of traumatic shock usually need at least 1,000 to 1,500 c.c. of plasma or whole blood in the first 24 hours. Again, I would caution that rules are inadequate and each case must be carefully followed. If much bleeding has occurred, whole blood will be indicated in preference to plasma if it is available in the emergency. Also, it is usually needed in the later treatment of severe burns.

In addition to these most beneficial uses of plasma, it seems likely that, with the development of plasma banks in hospitals in the larger cities, the use of human convalescent plasma (or serum) for the prevention and treatment of infectious diseases will increase and that such material will be found to be a most valuable therapeutic adjunct in an increasing number of infectious diseases. Its use is now well established in measles, scarlet fever and mumps.

The newest blood derivative being used by the armed forces is human serum albumin. As now in use, it is a rather stable, concentrated solution of serum albumin, that fraction of plasma most important in the maintenance of the colloid osmotic pressure of the blood. It is packaged in 100 c.c. vials, containing 25 grams of albumin, the equivalent of approximately 450 c.c. of citrated plasma. Its great military advantage lies in the fact that it represents the smallest bulk in which this quantity of a plasma protein can be prepared in a relatively stable form. It cannot be regarded as a complete substitute for plasma and is considered solely as an emergency first-aid measure in the treatment of shock. Medical officers are instructed that it should be followed by the administration of plasma as soon as possible if, as is commonly the case, additional protein is needed. Its use is limited to those military installations and operations where space or the nature of the activity prohibits the storage or transportation of adequate amounts of plasma. There are certain dangers inherent in its use:

1. In its present concentrated form, it is very hypertonic and supplies almost none of the fluid that may be needed in the treatment of traumatic or burn shock.

2. Because of this hypertonicity, its use can increase hemorrhage and aggravate existing dehydration due to the rapid increase in blood volume.

3. It supplies only albumin, no complement, prothrombin or globulin, the fraction which contains all antibodies. Therefore, its use for extensive or continued replacement of lost blood volume is subject to dangerous possibilities. It is not yet available for civilian use. If that time should come, these dangers should be borne in mind and it should probably never be used if plasma or serum is readily available. Albumin is the most expensive of the blood derivatives now in use.

The great interest in the development and use of blood plasma and albumin has led to undue emphasis on their value as compared with whole blood. With this in mind, I would like to present a summary of the indications for the uses of whole blood and plasma.

In traumatic shock, when there has been hemorrhage, either external or internal, whole blood should rank as first choice, with plasma second. If plasma must be used because whole blood is not promptly available, care should be taken to replace an adequate number of red cells as soon as possible. In shock with hemoconcentration, such as is seen in burns and the crush syndrome, plasma is first choice. Whole blood is second choice and is preferable to any other intravenous therapy. These statements are based on the assumption that both whole blood and plasma are immediately available in an

(*Continued on page 488*)

NEW CHEMOTHERAPEUTIC AGENTS IN THE TREATMENT OF INFECTIOUS DISEASES— SULFAMERAZINE AND SULFAMETHAZINE[*][†]

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AS LATE as forty years ago, therapy with synthetic drugs was merely a dream. Up to ten years ago only the arsenicals gave any hope of success. Today the most roseate dream promises to come true as a result of the discovery of the sulfonamides and other chemotherapeutic agents. In fact, the dream is coming true faster than we can awaken to it. We are bewildered by the many new sulfonamides continually being synthesized. Accordingly, it is important for us to determine as quickly as possible the value of each new drug in the treatment of infectious diseases in humans. We must answer four questions regarding each new sulfonamide: Will it displace all other sulfonamides for certain diseases? Should it be used interchangeably with other sulfonamides? Should it be employed only in certain specific instances? Or should it be discarded as being less suitable than the drugs already in use? With this purpose in mind, therefore, I shall summarize the experiences of my associates and myself with the more recently introduced agents of the sulfonamide group, sulfamerazine and sulfamethazine,[‡] and see what tentative conclusions may be drawn at the present time regarding their usefulness.

SULFAMERAZINE

Sulfamethyldiazine or sulfamerazine consists of sulfadiazine with one methyl group added upon the pyridine radical. It was synthesized by Roblin and his co-workers[1] and discovered by them to be two and one-half times as soluble as sulfadiazine in water while its acetyl derivative is twice as soluble as that of sulfadiazine. Goodwin, Peterson and Finland[2] found that after a 5-gram dose of sulfamerazine, the level of the drug in the blood rose to twice that obtained after the administration of 5 grams of sulfadiazine. Excretion of sulfamerazine was found to be slower than that of sulfadiazine and therefore remained in the blood stream longer. Because of the high blood levels ob-

TABLE 1

Diseases for Which Sulfamerazine and Sulfamethazine Were Given

DISEASE	SULFAMERAZINE		SULFAMETHAZINE	
	Total	Died	Total	Died
Pneumonia				
Pneumococcal	49	2	26	2
Unidentified	20	5	18	2
Meningitis				
Meningococcal	35	2	0	—
Pneumococcal	9	7	0	—
Other	4	2	0	—
Staphylococcal Bacteremia	5	3	0	—
Subacute Bacterial Endocarditis	3	3	1	1
Other Infectious Diseases	58	—	14	—
Total	183	—	59	—

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[*] From the George Washington Medical Division, Gallinger Municipal Hospital, and the Department of Medicine, George Washington University School of Medicine.

[†] Read before the Society, October 27, 1943.

[‡] Sulfamerazine and sulfamethazine were supplied by Lederle Laboratories, Inc.

tained and the greater solubility of sulfamerazine, it has been tried clinically in the treatment of various infectious diseases. Preliminary reports regarding its clinical value have been made by Gefter, Flippin and their associates,[3,4] by Hall and Spink,[5] by Lepper, Sweet and Dowling,[6] and by Hageman and his associates.[7]

At the present time we have employed sulfamerazine in the treatment of 183 patients, as shown in table 1. Forty-nine of these patients had pneumococcal pneumonia, and in 20 more the organism causing the pneumonia was not found. Seven, or 10 per cent, of the total of 69 patients with pneumonia died. Thirty-five patients ill with meningococcal meningitis were treated, with only 2 (6 per cent) deaths resulting. Seven of the 9 patients with pneumococcal meningitis died, and 1 patient failed to survive among the 3 suffering from meningitis caused by other bacteria. Five patients with staphylococcal bacteremia were treated, with 3 deaths, whereas all 3 patients died who were given sulfamerazine for subacute bacterial endocarditis.

TABLE 2

Toxic Reactions Following the Administration of Sulfapyridine, Sulfathiazole, Sulfadiazine, Sulfamerazine and Sulfamethazine

	SULFAPYRIDINE		SULFATHIAZOLE		SULFADIAZINE		SULFAMERAZINE		SULFAMETHAZINE	
	No. of Patients	Per Cent	No. of Patients	Per Cent	No. of Patients	Per Cent	No. of Patients	Per Cent	No. of Patients	Per Cent
Vomiting	102	20.1	19	5.9	9	1.4	2	1.2	2	3.4
Renal calculus	8	1.6	9	2.8	10	1.5	7	3.8	1	1.7
Drug fever, dermatitis and/or conjunctivitis	12	2.4	20	6.2	13	2.0	9	5.0	3	5.1
Mental confusion	12	2.4	5	1.6	10	1.5	0	0	0	0
Leukopenia (with or without granulopenia)	6	1.2	4	1.2	6	0.9	4	2.2	2	3.4
Acute hemolytic anemia	7	1.4	1	0.3	1	0.2	0	0	0	0
Leukocytosis	0	0	0	0	2	0.3	0	0	0	0
Yellow vision	0	0	1	0.3	1	0.2	0	0	0	0
Peripheral neuritis	1	0.2	0	0	0	0	0	0	0	0
Total patients with toxic reactions*	148	29.3	58	11.8	51	7.7	21	11.5	7	11.9
Patients with no toxic reactions	360	70.7	263	88.2	609	92.3	162	88.5	52	88.1
Total patients treated	508	100.0	321	100.0	660	100.0	183	100.0	59	100.0

* An occasional patient had more than one toxic reaction.

Fifty-seven additional patients were treated for other infectious diseases, most of which were less serious in nature, including gonococcal arthritis, pyelitis, lung abscess, and bacillary dysentery.

There are three ways in which a new sulfonamide might excel over those already in use: (1) It might be easier to administer; (2) it might cause less toxic effects; or (3) it might give superior therapeutic results. Considering the last point first, one can see that the figures shown in table 1 are comparable to our results and those of others achieved with the use of sulfapyridine, sulfathiazole or sulfadiazine. Sulfamerazine, then, apparently possesses no therapeutic advantage over these sulfonamides already in established use. What of its toxicity? In table 2 are shown the toxic effects observed in our patients treated with sulfamerazine. For comparison there are included the figures obtained by Lepper and Dowling[8] in an analysis of all patients treated with sulfapyridine, sulfathiazole and sulfadiazine, observed by us up to January 1 of this year. The total number of patients experiencing toxic reactions amounted to 29.4 per cent following sulfapyridine, 11.8 per cent following sulfathiazole, 7.7 per cent following sulfadiazine, and 11.1 per cent following sulfamerazine. The percentage of reactions following the use of sulfamerazine was no less and was usually greater than that observed following the administration of sulfadiazine. This comparison may not be entirely valid, however, since on the same dosage schedule higher levels of sulfamerazine are reached in the blood than is the case with sulfadiazine. We are in the process of determining the incidence of toxic complications, such as renal calculi, following the use of sulfadiazine and sulfamerazine when the drugs are given in doses which produce similar levels in the blood. At the present time we can say tentatively that there is very little difference, if any, in the number of toxic reactions following the use of sulfamerazine as compared with sulfadiazine.

This brings us to a consideration of the third basis on which we may compare sulfamerazine with the sulfonamide drugs already in use; namely, is it any easier to administer?. Our findings have been similar to those of Goodwin[2] and others, that sulfamerazine is absorbed more rapidly, reaches higher levels in the blood, and remains in the blood stream for a longer time than sulfadiazine in comparable doses. If these drugs are subsequently shown to be equally effective therapeutically, the achievement of high blood levels is an advantage in certain seriously ill patients, such as those with pneumococcal meningitis or bacterial endocarditis and perhaps meningococcal meningitis. On the other hand, high blood levels are probably not required in the treatment of most infectious diseases, since Hartman, Feldman, Jenkins and Dowling[9] have shown that, in the routine treatment of pneumonia, just as many patients recovered (although more slowly) after receiving 2 grams of sulfadiazine initially, followed by 0.5 gram every 4 hours, as recovered after receiving 6 grams as the initial dose and 1 gram every 4 hours thereafter.

The maintenance of high levels in the blood on low doses has the additional advantage of saving drug and thus lowering the cost of treatment. The slower excretion of sulfamerazine which accompanies this, however, is a disadvantage, since sulfamerazine will not disappear from the blood as quickly as other drugs in case the drug is stopped because of a toxic reaction like dermatitis, leukopenia, anemia or renal calculus. We have found sulfamerazine to be present in measurable amounts in the blood stream for as many as 5 days after the last dose was given.

With the information we have at hand at present, therefore, we must conclude that sulfamerazine possesses efficacy equal to that of most of the currently used sulfonamides in the treatment of many infectious diseases, that it apparently does not cause fewer toxic reactions than sulfadiazine, and that it possesses the advantage of achieving higher blood levels than the other sulfonamides along with the disadvantage of slower excretion. Certainly it does not seem likely to displace sulfadiazine and sulfathiazole but will probably take its place alongside them.

SULFAMETHAZINE

Roblin and his associates also synthesized the dimethyl derivative of sulfadiazine, sulfamethazine. This has been used clinically by three groups of English workers[10, 11, 12] who reported satisfactory results in the treatment of pneumonia and other diseases. We have treated 59 patients with this drug, as shown in table 1. Forty-four of these had pneumonia, 4 of whom died. The others suffered from various infectious diseases including bronchitis, gonococcal arthritis, pyelitis, bacterial endocarditis and lung abscess. Vomiting occurred in 2 patients, or 3.4 per cent, renal calculus in 1 patient, or 1.7 per cent, drug fever in 3 patients, or 5.1 per cent, and leukopenia in 2 patients, or 3.4 per cent. Since only an approximate idea of the true toxicity of a drug can be ascertained from such a small group of patients, and since the doses we have employed have usually been higher than the doses ordinarily given in the case of other sulfonamides, it can merely be surmised at the present time that the toxicity of sulfamethazine is in general comparable to that of sulfadiazine and sulfamerazine. The proportion of patients having severe toxic reactions from sulfamethazine was 11.9 per cent.

The first two questions regarding the evaluation of sulfamethazine can be answered by stating that it is apparently as effective therapeutically and no more toxic than sulfadiazine and sulfamerazine. What about the facility with which it is absorbed and excreted? Does it possess any advantages or disadvantages with regard to administration? Here, apparently, is where it falls short. The absorption of sulfamethazine is very irregular. Initial doses of 4 grams followed by 1.5 grams every 4 hours produce average blood levels of free sulfamethazine anywhere from 2.9 to 13.9 mg. per 100 c.c. Furthermore, in the same patient these levels varied as much as 16 mg. per 100 c.c. from one day to another. In the small number of patients which we have treated together with those treated by the British investigators, this has not seemed to make any difference in therapeutic results. Nevertheless, since we have two other drugs of equal therapeutic value, sulfadiazine and sulfamerazine, which do not exhibit any more toxicity than sulfamethazine, it should not be necessary to introduce another drug which is so irregularly absorbed if it is not superior in any way.

Our conclusions, then, regarding the new sulfonamide drugs are that in sulfamerazine we have a drug which can take its place alongside sulfadiazine as apparently equal in therapeutic efficacy and apparently no more toxic. It has the advantage that higher levels can be obtained than with the same doses of sulfadiazine, but the disadvantage that it would remain in the blood stream longer than sulfadiazine in case the drug were stopped after a toxic reaction occurred.

Sulfamethazine, likewise, is of the same order of therapeutic efficiency and toxicity as sulfadiazine and sulfamerazine, but it is irregularly absorbed, the blood levels varying from patient to patient and in the same patient from day to day. It is unlikely, therefore, on the basis of present information that sulfamethazine will be widely utilized.

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Treatment for Head Lice. The formula of a lotion which proved to be quite satisfactory for the treatment of head lice and their eggs on children in an American hospital and on civilian populations in Mexico and which is recommended for general use in the control of head lice is reported in *The Journal of the American Medical Association* for November 27, 1943, by William A. Davis, M.D., New York.

In the introduction to his report, Dr. Davis explains, "As part of a general program to devise methods for the control of typhus fever a systematic study was undertaken with the view to determining the louse-killing properties of various chemical agents. . . ." He points out that there are many objections to the older methods for the control of head lice and says, "The ideal method for treating pediculosis capitis should be by a lotion, since only a liquid can easily penetrate the entire hair and leave a residual for prolonged action. The fluid should rapidly kill lice and nits, should not have unpleasant properties such as greasiness, staining or odor and should be both cheap and lasting. Systemic laboratory studies revealed several materials with these properties. Phenyl cellosolve and benzyl cellosolve were the most efficient and were readily available. . . . For simplicity only phenyl cellosolve was used on human beings."

The formula used was phenyl cellosolve 40 per cent, ethanol 30 per cent, water 25 per cent and methyl salicylate (as a perfume) 5 per cent. In the investigation in a New York hospital, the lotion was applied on 50 children as soon as lice were discovered. It was applied so that the hair was thoroughly wet, and the nurses were cautioned to keep the fluid out of the eyes and the mouths of the children. No further treatment was used. No live lice were ever found after a single treatment.

President's Page

THE DOCTOR AND GROUP NURSING

As has been previously pointed out in the editorial columns of the Medical Annals, there is an acute shortage of private duty nurses in the District of Columbia. It now appears that the civilian population will have to get along with still fewer nurses. For the Army's needs are urgent and must be satisfied to the extent possible.

How can we best conserve and utilize our nursing power on the home front? First of all, I feel that the District Procurement and Assignment Service for Nurses is responsible for evaluating the essentiality of all the nurses in the District. Age, dependency and other eligibility factors, including the position held, should be deciding factors. Apparently the Committee has not been given full discretion in such matters. But to the extent it is allowed to do so it should exercise its powers.

A partial solution to the private-duty nursing shortage lies in the group nursing plan. Adoption of this plan has been approved by the Graduate Nurses' Association, District Procurement and Assignment Service for Nurses, and the Medical Society's Executive Board. Its success will depend upon the coöperation of all interested parties—hospital officials, physicians, nurses and patients. Needless to say, the physician's role is a most important one. He can suggest to his patients who are not too ill that they share nurses' services. He can explain to them that not only will this be less costly to them, but it will make it possible to give nursing care to many who would not otherwise receive it. Few, I am sure, would refuse to coöperate.

It is my hope that group nursing will be made to function satisfactorily in all hospitals. I have a feeling that if it is given a chance to succeed, it will not only prove its value as an emergency measure but will become a permanent feature of hospital nursing services.

Fred R. Sanderson

Editorials

THIS CHRISTMAS AND ITS PROMISE

These are grim days for all of us. Our far-flung battle lines nearly encircle the globe. In every clime and under all sorts of conditions, our boys are carrying the fight to the enemy. Modern war is devastating. Monstrous machines of war are bringing suffering, extinction and desolation to peoples all over the earth. And yet at Christmas time a gentle spirit will pervade most of the world even though nations are fighting to the death for survival. This will be especially true wherever our boys are stationed. For Christmas will bring them memories of the gayest and happiest season of the year. Their thoughts wherever they may be, from the slopes of icy Greenland to the jungles of New Guinea, will turn homeward.

On the home front, Christmas will, of course, not be the same for we will miss our boys mightily. But like them, realizing the task before us, we will enter into the holiday spirit, dedicating ourselves anew to the cause for which we are making great sacrifices.

Christmas, then, with its gentle radiance augurs better days when the world will return to peaceful pursuits. Happily for us a promise of better days is in the air this Christmas for our forces are already on the road to victory.

To many of our physicians now on fighting fronts throughout the world, we send our greetings. It is fitting that we dedicate this issue of the MEDICAL ANNALS to them. On the cover of this number will be found a service flag indicating that 225 of our members are now in the armed forces. On page 481 there appears an honor roll of those of our members in uniform.

Let us pray for our doctors wherever they may be, that when victory is won they will be safely returned to their friends and those they love.

THE MECHANISM OF HEART FAILURE

For some time our ideas regarding the mechanism of congestive heart failure have been static. It has been taught that the failing heart dilates and its output diminishes as a consequence of an inability to empty itself completely with each beat. Blood therefore tends to accumulate in the venous systems, and the venous pressure rises. The increase in venous pressure has a somewhat corrective effect[1] in that it promotes better cardiac filling and hence improves cardiac output. On the other hand, the rise in venous pressure is mainly responsible for most of the visceral manifestations that we recognize as being due to congestion.[2] Using isolated heart-lung preparations in which heart failure was provoked by means of chloral hydrate or other poisons, Fahr and Buehler[3] have confirmed most of these ideas. They have further proved that the basic factor in the heart failure of their experiments was decreased mechanical efficiency of the heart.*

In the past few years Starr has published several papers which indicate that he doubts the validity of some of the old teachings and the completeness of others. His interest was aroused when he constructed a mechanical circulation schema[4] which behaves according to accepted physiologic principles. Using this schema he attempted to reproduce the manifestations of heart failure by weakening one or both sides of the "heart." The experiment failed. When the "heart" was weakened, the "venous" pressure in the system showed an expected rise; but here the analogy to clinical heart failure ended, because the systemic "arterial" pressure and the cardiac output diminished greatly. However, when, in addition to weakening the "heart" of the schema, some factor was introduced which raised the static pressure* of the system, the clinical picture of heart failure was reproduced. The static pressure could be raised either by increasing the fluid volume of the circulation or by means of a rather generalized increase in "vascular" tone (vasoconstriction). Additional evidence of the importance of an elevation of static pressure in the clinical picture of heart failure was then obtained by measuring the pressure promptly after death in 64 patients.[5] In persons dying of congestive heart failure the static blood pressure averaged 20.3 cm. water, while in persons dying without heart disease it averaged 7.6 cm. Starr concluded that "this difference is large enough to account for the major part, in some instances for all, of the high venous pressure found in cases of congestive heart failure during life."

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[1] McMichael, J.: Quart. J. Med., 1938, 7, 331.

[2] Fahr, G. E., and Ershler, I.: Ann. Int. Med., 1941, 15, 798.

[3] Fahr, G. E., and Buehler, M. S.: Am. Heart J., 1943, 25, 211.

* The ratio of work performed to oxygen consumed in releasing energy from fuel materials is the mechanical efficiency.

To this point Starr's studies are not entirely irreconcilable with the accepted theories about heart failure, although some modification of them is necessary. In particular, the rise in venous pressure associated with congestive heart failure cannot be attributed directly to weakening of the heart. Readjustments in the peripheral circulation which raise the static blood pressure are of at least paramount importance. A recognized effect of one of these readjustments is an increase in total blood volume, but the origin of this effect and an appraisal of other possible modes of readjustment require further study.

Most recently Starr[6] has published the results of acute and chronic experiments in which the right ventricle of the dog's heart was directly damaged. In the acute experiments the right ventricle was cauterized almost to the point of rupture, and in the chronic experiments the visible branches of the right coronary artery were ligated. In no case did the peripheral venous pressure rise significantly, much less evidences of right ventricular failure make their appearance. These findings led the author more strongly than ever to the view that weakening of the heart plays a comparatively minor part in the development of the "congestive" manifestation of heart failure and that a more thorough analysis of changes in the peripheral circulation has been too long neglected. We are left therefore with the stimulating thought that the mechanism of development of congestive heart failure is not nearly so simple a problem as most of the standard texts on the subject would have us believe.

H. H. H.

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* Static pressure is the pressure of the blood in the vessels when the heart has ceased to beat.

[4] Starr, I., and Rawson, A. J.: Am. J. M. Sc., 1940, 199, 27.

[5] Starr, I.: Am. J. M. Sc., 1940, 199, 40.

[6] Starr, I., Jeffers, W. A., and Meade, R. H.: Am. Heart J., 1943, 26, 291.

OBSTETRICAL ANESTHESIA—A WARNING

The provisional birth figures through September show that in the District of Columbia there have been 17,357 births reported in the first nine months of the year, 15 per cent more than in the same period of 1942.[1]

Ever since 1940 there has been a steady increase each year of about three thousand births over the preceding year. In 1940 total live births in the District of Columbia amounted to 15,309. In 1941 there were 18,294; in 1942 there were 21,317,[2] and the provisional figures for 1943 through September indicate a total number of live births for the whole year 1943 of about 23,300.[3] During the same period there has been a decline in the number of physicians in the District of Columbia and this necessarily affects the number available to care for maternity patients in this area. In spite of this the gains in decreasing maternal mortality seemed through 1942 to be retained. From a high of 69 deaths per 10,000 live births in 1936, the rate declined to 27.3 in 1941, and to 22 in 1942.[2]

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[1] U. S. Bureau of the Census: Monthly Vital Statistics Bulletin, Vol. 6, No. 9, Nov. 8, 1943. (All other figures used unless otherwise noted are from the Bureau of the Census.)

However, there is a limit beyond which the increase in maternity cases along with an accompanying decrease in available physicians cannot be carried without the introduction of an increase in maternal mortality.

One of the problems brought to the fore in this situation is the question of the safety of anesthesia in obstetric patients. Where formerly accidents of one kind or another incident to the use of anesthesia occurred with discouraging regularity, in recent years these accidents have been exceedingly rare. Now, however, there is evidence that with the growing shortage of competent anesthetists this situation must be squarely faced. It is observed that anesthesia accidents are again appearing, and while they have not necessarily been fatal in all cases, it is inevitable that this source of maternal mortality will again soon appear in the figures within this area.

To attempt to go back many years to the days in which anesthesia was not used for delivery is comparable to going back to the days when operations were done without anesthesia. It would be the source of no comfort to the men in the armed forces to know that their wives were to be delivered without any of the relief afforded by anesthesia. The fact remains that attempts will be made to deliver these women with the best anesthesia that may be available.

Hospital obstetric staffs will now need to be especially on the alert to see to it that untrained personnel be not pressed into service for anesthesia and that especial inquiry be made of every patient prior to general anesthesia regarding previous meals.

It is inescapable that the Procurement and Assignment Committee must assume the responsibility of deciding whether more lives will be forfeit by retaining sufficient trained personnel on the home front or by allocating it to the armed forces.

H. P. R.

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[2] D. C. Bureau of Vital Statistics.

[3] Author's estimate.

In and Out of Focus

BY THE OBSERVER

"The Old Guard"

Speaking before the St. Louis Medical Society last October, Dr. R. Emmet Kane paid tribute to what he affectionately dubbed "the Old Guard," those "who have borne the brunt of battle for more than half a century and who still retain that enthusiasm for their calling which denies to them the right to unbuckle their armor and to rest." Dr. Kane reviewed, in a most interesting fashion, the contributions made by these physicians and their colleagues to medical science.

If it were not for the limitation of space we would like to publish Dr. Kane's address in full. This is not possible, but feeling certain that the readers of this department would appreciate his amusing description of what has taken place in the past half century outside the scientific realm, we present herewith the following excerpts:

"Let me remind the young men and women in this audience of a few more of the revolutionary changes not only in the body scientific but the body social and political as well which have taken place during the first fifty years of your labors.

"When you started out, gay young blades, many of you with whiskers, some of you with plug hats, a few of you with Prince Albert coats, there were no A, B or C ration coupons to plague or annoy you.

"The automobile was still a nebulous dream and the horse still a beast of burden. He had not, as yet, become a delicacy on the rich man's table.

"All of you probably shared the belief of most sane people, that no heavier than air machine would ever improve on the abortive and disastrous flight of the contraption of Darius Green.

"Well, you have lived to see the stars dodge out of the way of our bombers and fighting planes and you have met keen-eyed, brave boys who only feel happy when they are flying seven or eight miles above the surface of this abode of sin and foolishness.

"You saw the birth and death of Pfeiffer and Pfeifferism, of Bryan and Bryanism, of Teller and Tellerism, of Townsend and Townsendism, of Carrie Nation, of sockless Jerry Simpson, of Bath House John, Huey Long, Prohibition and the Bull Moose Party.

"You have seen what has been loosely described as the homo sapiens pay tribute, as well as the coin of the realm, to Doc Cook, Mary Baker Eddy, the Ouija Board, to Goat Gland Brinkley, the Keely motor and to Father Divine.

"Yours were the ears that heard the slogan, 'Votes for Women will purify the ballot.' Well, you fell for that one and now that the women have gotten the ballot all cleaned up, we of today wonder what slogan is going to get Pistol Packing Mama back home out of the taverns, the cocktail bars, and the handbook shops. Then, too, who is going to solve the burning question that troubles the mothers of the present day—Is it better to wean a baby on a Camel, an Old Gold or a Lucky Strike cigarette? Oh tempora, Oh mores!

"You remember Sir John Luckley in the latter part of the Seventeenth Century wrote:

Her feet beneath her petticoat
Like little mice stole in and out
As if they feared the light.

If Sir John were alive today he would have to turn his poetry-writing job over to some modern realist who might say:

Today his best gal's mouselike feet
Mean nothing to her feller,
'Cause even grandma's skimpy skirt
Don't hide her dern perteller!

"Yes, honored guests, you have come a long way, with radio and television and zoot suits and crooners and lady riveters and two World Wars, and the reincarnation of Nero and Tiberius Caesar and Caligula in the persons of Hitler and Hirohito and Mussolini. You have witnessed many strange events. Strangest of all perhaps is that you have lived to hear the name of Thomas Jefferson booed at a Democratic National Convention and to see the Republican Party run a hoarse and disappointed Democrat for the presidency of the United States. Be of good cheer, however, and do not desert us, because this paranoid world needs you and people like you now more than ever in its history."

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The Assembly Attendance

It was the intention of the Committee on Arrangements for the 15th ANNUAL SCIENTIFIC ASSEMBLY to release a breakdown of the attendance figures for publication in the November issue of the MEDICAL ANNALS. However, these data were not available when that number went to press; consequently, they now appear in your Observer's column.

An analysis of the attendance, which was the largest in the history of the ASSEMBLY, follows.

Physicians, including Medical Officers in the Army and Navy	1,036
Medical Students	336
Nurses	157
Dentists	30
Dietitians	39
Pharmacists	29
Miscellaneous, including Technicians, Engineers, Chemists, Social Workers and other guests	484
	2,111

Financially, the ASSEMBLY about paid its way. Costs of putting on the meeting were considerably more than anticipated. For this reason the Committee was understandably elated that there was not a deficit.

Dr. Arnold McNitt and his co-workers did a splendid job. It will be of interest to our readers to know that he has been reappointed Chairman of the Committee on Arrangements, and under the new arrangement, whereby the Chairman serves for two years, he will be in charge of the 1944–45 ASSEMBLIES.

★

Tempestuous Living

Washington has gained the reputation of being more or less of a madhouse where everyone runs hither and yon without accomplishing a great deal. This Observer has felt that that picture was, to say the least, overdrawn. In recent weeks, however, he is not so sure.

Those of us who are active in civic affairs of our city are taking a terrific beating these days. Aside from our regular duties, we are frantically trying to keep up with the many outside activities—and the emphasis might well be on *many*—for most of us are asked to serve on innumerable committees, all apparently worthily engaged in war work. The result has been that we are in a turmoil hastening from one meeting to another until we wonder what it is all about.

We cannot escape the inevitable conclusion that much of our time is wasted, and that there are too many organizations of dubious value. The best thing that can be said for them is that their objectives are commendable. It is for this reason, and this alone, that we do not feel that we can refuse to participate.

All of this has a shattering effect upon our lives. We have little time to relax or to reflect, which is so necessary to our mental equilibrium. One of the blessings of peace to which those of us on the home front will look forward is the relief from much of the organization work we are doing. That will indeed be a happy day!

★

Is Suspicion Justified?

Not long ago a physician assured this Observer that the District Health Department planned to take over medical practice in Washington. He cited abuses in hospitals and clinics as evidence of this fact. "What is the Society going to do about it?" he inquired.

Then there was the doctor who did not trust the United States Public Health Service "as far as I can throw a cat by the tail." For he said the Service wants to socialize medicine and he warned that we had better be on our guard or else.

More recently we were told that the Army and Navy have designs on the medical profession. We were assured that taking over medical schools is just the first step to government control of doctors.

Perhaps there are individuals in the various Government departments who have just such notions. But we are of the opinion that they are based largely on suspicion rather than facts.

Your Observer has talked to many leaders in the Government health services, local and national, and he is of the belief that they have only honorable intentions and are not unsympathetic to the medical profession. In his opinion much is gained by a frank discussion with them in an effort to work out a satisfactory health program. There may be disagreements and it migh tbe that each would walk his own way. Nevertheless one cannot help but feel that eventually a common ground would be found.

★

Essential Status of Doctors' Assistants

Recently a Washington physician reported to the Secretary of the Medical Society that he had employed a secretary without investigating her previous employment. He had been notified that this young lady had been employed in a doctor's office in Miami, Florida and that she had failed to obtain a written release as required of essential workers under the regulations of the War Manpower Commission. The doctor was certain that most physicians were unaware that the regulations applied to their office help and suggested that they be informed of the requirements in these columns.

Your Observer called the United States Employment Service and was told that offices of medical doctors were included in the list of essential activities by order of the War Manpower Commission. Doctors who employ help of any kind should therefore ascertain if applicants have previously been engaged in an essential activity within a period of sixty days prior to their making an application. He should also learn if they are from out of town. In this event they must be cleared through the local United States Employment Service. If physicians fail to make such inquiries, they may be violating Government regulations.

If an individual employed by a physician desires to leave she must obtain a written release regardless of the kind of employment she seeks.

There are many categories of essential employment. For example, any one working in a defense plant is an essential worker and must have a written release. The safe thing for the physician to do, therefore, is to ascertain the essentiality of the worker in her previous employment by calling the United States Employment Service. Where the individual has not been employed in the previous sixty days no release is necessary.

Physicians desiring more detailed information regarding the essential status of wartime workers should call the Secretary's office. The Secretary will be glad to be of assistance.

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Fourth Annual Physicians' Golf Tournament

A lovelier day could not have been chosen than November 4, the date on which the Fourth Annual Physicians' Golf Tournament was held at the Burning Tree Country Club. As a result 44 physicians turned out for this event, which was an unusually good attendance considering the demands being made upon physicians. Those who were present all agreed it was a most enjoyable affair providing them with much needed relaxation.

Golfers will be interested in the following scores:

Low Gross	Dr. Howard L. Smith	82
	Dr. Frank M. Hand	83
	Dr. William H. Jenkins	84
	Dr. Harry F. Anderson	85
	Dr. Clayton Hawfield	86
Low Net	Dr. John M. Gaines	70
	Dr. Weston Bruner, Jr.	71
	Dr. James M. Moser	71
	Dr. Jeter C. Bradley	72
	Dr. Charles S. Coakley	74
	Dr. Alan J. Chenery	74
	Dr. Leo B. Gaffney	74

In addition to the above many others received prizes, which were more numerous than in previous years.

The following firms contributed prizes:

Marion S. Alley, Beuchler's, Coca-Cola Company, H. LaFay Corwin, Edmonds, Gawler's Sons, Gibson Company, Good Hope Pharmacy, Higger's Pharmacy, Hilton's Professional Pharmacy, S. H. Hines Company, Hysong's, Kloman Instrument Company, Maxwell & Tennyson, Medical Credit Association, Monaghan-Randels, Inc., O'Donnell's Pharmacy, Peoples Drug Stores, Service Pharmacy, Charles G. Stott and Company, George Teunis, Tschiffely Brothers, "Ham" Underwood, Whittlesey's Drug Store, John H. Wilkins Company and Woodley Drug Store.

★

"A Solution . . . Needed" —McIntire

Your Observer has tried for some time to obtain a copy of the notes used by Rear Admiral Ross T. McIntire, Surgeon General of the United States Navy, when he addressed the 15th Annual Scientific Assembly. He has finally wangled a digest of the talk from Lt. G. G. (Jerry) Gross, the quietly genial and very popular information officer at the Surgeon General's office, who was present to hear his chief.

The Admiral spoke informally and as his address was not transcribed we are very much indebted to Jerry for his help. Those of us who know Admiral McIntire have a high regard for his views, not only because he is friendly to the medical profession but because he is a sound thinker. What he has to say, therefore, carries considerable weight with doctors.

The following paragraphs taken from the digest of the Admiral's talk we believe are of special interest.

"The armed services were caught unprepared for the heavy demands upon medical services, which points a lesson that in the future there should be better planning between the military and the medical profession. Two more years of war probably lie ahead and yet we are still groping for doctors.

"Too hasty demobilization, when the war ends, would result in confusion similar to that which prevailed at the close of World War I. With peace and readjustment will come an increase in floating populations. Our doctors will be responsible for the health of these people. It will be the responsibility of these men to prevent epidemics, for the Reserve medical officers will be returning quite slowly to their civilian practices. Not more than two thirds of these Reserves can be expected to be inactivated when the war ends. At least one third will be needed by the services. Between seven million and ten million men will be returning home after the war and I would dislike to see this accompanied by any change in the practice of medicine. I wonder how much medicine can allow the United States government to do without bringing about state medicine.

"Doctor bills are high, and yet the physician's fee doesn't amount to two hoots in a medical case. Hospital and laboratory fees are high, too high for most persons. A solution is needed which will not interfere with medicine. Such a solution, acceptable to both the public and doctors, is possible and I hope it will be worked out. The prepayment plan [unnamed] in operation in the District is a good one.

"A source of gratification is the progress made in preventive medicine and the realization that the knowledge which Reserve doctors are acquiring in this field will be applied by them in civilian life in later years. Our Reserves, who outnumber the Regulars by a ratio of ten to one, are doing a fine job in the Navy. Ninety-five per cent of the heads of hospital departments are Reserves."

The Admiral is understandably proud of the Reserve doctors serving under him. They have really done a fine job.

On several occasions he has voiced his concern about the future of private medical practice. He has urged that a solution to over-all costs of medical care is needed and he hopes the medical profession will find it.

The unnamed prepayment plan to which he refers as operating in the District is undoubtedly Group Hospitalization, Inc. On the other hand, he may have reference to the suggestion made to him that our Society may again consider an experiment with prepaid medicine, being under the impression that it is in operation. We haven't had an opportunity of checking this with him.

The important thing is his conviction that the medical profession, if it will, can still control its destiny by taking steps which will give the public assurance that medical needs of the people will be adequately cared for at a reasonable cost.

★

Shall Doctors Unionize?

More than one physician, tired of being shoved around, as he terms it, has expressed the belief that doctors should unionize. Usually such statements are confined to discussions in hospital corridors or where small groups of doctors congregate and cannot be taken too seriously. On the other hand, statements have appeared in medical journals suggesting the desirability of such a move and a few physicians who feel strongly on this subject have said so in medical meetings.

A more serious effort in this direction was made at the annual meeting of the Colorado State Medical Society last September. Dr. Ralph S. Johnston of La Junta, the retiring President, offered a resolution which would place the House of Delegates of the Colorado State Medical Society on record as favoring the formation of a union of members of the American Medical Association and instructing delegates from Colorado to present a resolution to this effect at the next meeting of the American Medical Association. The *Rocky Mountain Medical Journal* for October which reports this proposal does not state that the resolution was adopted by the Colorado Society. However, it does make this comment:

> "We cannot see why it would of necessity be incompatible with a continuance of the original purposes of the Association, viz., 'to promote the science and art of medicine and the betterment of public health,' if doctors provided themselves with modern weapons with which to fight modern battles. Who had dreamed seventy-five years ago of the changing conditions of so-

ciety that would make possible the introduction into the United States Senate of the Wagner-Murray Bill? Must we, because of hide-bound tradition, continue to face machine guns with muzzle-loading muskets?"

"If . . . we are to be continuously faced in the future by the necessity of waging political battles to maintain the standards and practice of medicine on a high level, and to insist that we have the directing voice in any changes which may be contemplated, it behooves us to take steps to acquire a legal status which will facilitate such efforts, and not to continue to attempt to work under rules which we have set up for ourselves which make them practically impossible."

In his resolution Dr. Johnston made the following argument for unionization:

"Such an organization should plainly state in the preamble to its constitution that the purpose is to give political and economic protection to all members and to develop a bargaining body.

"It is immaterial whether this organization is separate from the scientific body as the National Physicians' Committee is at present, but we should have some definite economic and political administration which is approved by, elected by, and responsible to the membership."

"Thirty years ago medical men were individuals with no political and few social responsibilities. Now we have definite groups in army service, mass relief and public health. We have solved the army service without coercion through our Procurement and Assignment Committees.

"In a similar way, we must meet the demands for public health and mass relief if we are to be independent and successful. This will require a more aggressive program than a scientific society can assume without a threat of excessive taxes. At present we are not allowed to spend our funds to influence legislation.

"The American Medical Association spent more than $100,000 last year trying to defend a vague system of ethics and an old nomenclature. I have no criticism of the court procedure, but I feel that it is time to change our nomenclature, become a union, and regain our constitutional rights. As a union, we may become the bargaining body with the U. S. government agencies, and as such, we hold the key to every social relief plan. This is the answer to the Wagner-Murray-Dingell Bill. They may rewrite this bill many times, but our services will be included.

"We cannot expect 114,000 to hold rigidly together and this arrangement should not be a closed shop. The minority will protect the majority actions. This plan should be open. There are stigmata attached to an effort to protect a group which is so essential and which has been as unselfish and patriotic as the American Medical Association."

Well, well, whoever would have thought it?

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Our Retired Officers

It is the usual and polite thing for members to say that the Medical Society of the District of Columbia has been fortunate in its choice of officers and to make other complimentary remarks. In these few paragraphs, your Observer is going to say some nice things about the Society's retired officers, but they will not be said just to be polite. He honestly believes that the Presidents and other officers who have been chosen since the Society's reorganization in 1938 have not only been faithful but in a majority of instances very capable.

It will be of interest to members to learn that the Executive Board which came into existence some months prior to the adoption of the present Constitution and By-laws in 1939 has undergone a complete change. In other words, all of the officers elected in 1938 have completed their terms of office and there is no physician on the Board now who was active at that time. Some of these men have given many years of service to the Society and it is natural that they should now seek respite from organization activities. A few, however, have been willing to accept important committee work. The others will undoubtedly get back into harness if there is an urgent demand for their services.

While it is true that new blood is needed, one should not lose sight of the fact that the experience of our retired officers is a valuable asset to our Society. The Society needs the advice and guidance of these men when it is faced with acute problems. Many of them have seen our organization through the most difficult and trying periods in the century and a quarter of its existence. Under fire they displayed courage and good judgment, and we hope that this fact will not soon be forgotten by our members.

War Section

OUR HONOR ROLL

This is the first time that a complete roster of members of the Medical Society of the District of Columbia in the armed forces has been published in the MEDICAL ANNALS. Perhaps this statement should be qualified because there is a possibility that some member has not been included. However, every effort has been made to bring the roster up to date and not to overlook any of our members in the military services. If, through some error, a name is omitted, the Editorial Board of the ANNALS would appreciate a communication to this effect. Next month any name not listed will appear in these columns.

Theodore J. Abernethy
Arnold A. Albert
Victor R. Alfaro
Francis Allman
John J. Andrina
Ellis April
Walter Atkinson
Louis B. Bachrach
William E. Bageant
George L. Ball
John G. Ball
Henry L. Bastien
E. Herbert Bauersfeld
William H. Beard
Joseph F. Belair
Robert A. Bier
Morris I. Bierman
Montgomery Blair, Jr.
Robert M. Bolton
Daniel L. Borden
Thomas Bradley
Crenshaw D. Briggs
Alfred E. Brigulio
Brooks G. Brown, Jr.
Peter P. Brue
Percy A. Bryant
Warren B. Burch
Everett S. Caldemeyer
C. Willard Camalier, Jr.
John L. Cardwell
Richard B. Castell
Ralph M. Caulk
John R. Cavanagh
Frank T. Cawley
Morris Chase
William D. Chase
William W. Chase
Austin B. Chinn
David S. Clayman
Milton C. Cobey
Robert J. Coffey
Roger S. Cohen
Francis T. Coleman
John L. Conley
Aloysius J. B. Connally
Linn F. Cooper
Karl C. Corley
Darrell C. Crain
Robert B. Crichton
J. Keith Cromer
Allen S. Cross
Ralph Crowley
Horace H. Custis, Jr.
Worth B. Daniels
Alva D. Daughton
Alfred A. J. Den
Jack L. Derzavis
Robert H. Detwiler
Michael P. De Vito
George Dewey
Arthur Dick
Samuel Diener
Mazarin C. Dollman
John F. Dominick
Harold R. Downey
George R. Farrell
Irvin Feldman
Max E. Feldman
Charles E. Fierst
John F. Finnegan
Harry M. Fletcher
Theodore C. C. Fong
Stuart O. Foster
Wesley Fry
Elmer W. Fugitt
O. Hugh Fulcher
Perry W. Gard
Edward T. Gary
Frank B. Geibel
James H. Gillen
Nathan Glaubach
Mervin W. Glover
Alfred Golden
Edward J. Grass
A. Clagett Gray
Luther W. Gray
James N. Greear
Milton M. Greenberg
Henry A. Grennan
Henry B. Gwynn
Alexander Halperin
John E. Hanby
J. Phelps Hand
Irvin Hantman
Malcolm D. Harrison
Clarence R. Hartman
Stafford W. Hawken
Ralph J. Haws
Eugene W. Higgins
Clayton H. Hixson
David F. Hodge
Herman S. Hoffman

Jay L. Hoffman
Raymond T. Holden
Saul Holtzman
Gerald A. Hopkins
Edmund Horgan
Henry A. Hornthal
William A. Howard
Camp S. Huntington
Donald W. Ingham
R. Lee Jackson
Bernard L. Jarman
William D. Jarman
John H. Judson
Howard F. Kane
Howard Katzman
Edward A. Kelly
Allan E. King
Elmer Klein
Morris Kleinerman
Ben Klotz
Don S. Knowlton
Stephen E. Kramer
Edward A. Krause
Harvey F. Kreuzberg
Henry T. Kulesher
Benjamin P. Lafsky
Zigmond M. Lebensohn
Donald H. Leeper
Sydney Leventhal
Stuart W. Lippincott
Philip Litvin
James M. Loftus
John Louzan
Henry M. Lowden
John Hugh Lyons
Leslie K. MacClatchie
Wilkins R. Manning
Raymond Maret
George V. Martin
Thomas E. Mattingly
Lee McCarthy
Francis N. McDonald
Marvin M. McLean
Russell McNitt
Albert E. Meisenbach
William C. Meloy
Matthew Mendelsohn
Ernest Michaelson
Clarence L. Miller
William S. Miller
Laurence C. Milstead
John Minor
Ferdinand H. Mistretta
Reginald H. Mitchell
Henry A. Monat
Joseph M. Moore
Edward C. Morse
L. Conner Moss
Arthur J. Mourot
Benjamin J. Mundell
Joseph J. Mundell
Raymond W. Murray
Edward W. Nicklas
Paul J. O'Donnell
Harry B. Orleans
Albert E. Pagan
John H. Peacock
Philip O. Pelland
Ivy A. Pelzman
William Raffel
Walter Rapaport
Thomas J. Ready
Clyde P. Reeves
George W. Reeves
John A. Reisinger
Alfred H. Richwine
Walter J. Romejko
Marshall deG. Ruffin
George W. Russell
Charles P. Ryland
William A. Ryon
Hilbert S. Sabin
Warren W. Sager
I. Lewis Sandler
John T. Schnebly
Leo V. Schneider
Leon Seley
Maurice Selinger
Hyman D. Shapiro
Isidore Shulman
Samuel Shwartz
George V. Simpson
Robert L. Simpson
John B. Smith
Luther H. Snyder
Daniel Sondheimer
William G. Sorrell
Philip A. E. Stebbing
Walter Stokes
Joseph D. Stout
Albert J. Sullivan
John C. Sullivan
Daniel F. Suttenfield
John A. Swartwout
S. Ross Taggart
John W. Thomas
J. Lawn Thompson, Jr.
Francis D. Threadgill
William J. Tobin
George Tolstoi
Frank H. Towner
John W. Trenis
Maurice van Kinsbergen
Charles P. Waite
Joseph J. Wallace
Harry S. Weitzman
Albert M. Wheeler
Eugene L. Willard
T. Frasier Williams
Paul R. Wilner
Alfred Wilson
William A. Withers
J. Rogers Young

WOMAN'S AUXILIARY NOTES

The program of the November meeting of the Woman's Auxiliary to the Medical Society of the District of Columbia included a moving picture, "The Last Will and Testament of Tom Smith," starring Lionel Barrymore, shown through the courtesy of the Community War Fund. A talk on "China" was given by Mr. William R. Johnson, who lived in China thirty-seven years and was there during the siege of Hong Kong. While Assistant Director of the American Red Cross, China Relief Unit, in Hong Kong, he was interned by the Japanese in Stanley Prison. He returned to the United States on the Swedish liner *Gripsholm* as an exchange prisoner.

Much work is being done for the American Red Cross through the able leadership of Mrs. Charles

H. McEnerney, Second Vice President of the Auxiliary and Chairman of the Special Committee for Red Cross. She reports that about three thousand surgical dressings are being made each month by an average of twenty workers. The work was continued all through the hot summer months. In addition to surgical dressings a considerable number of comfort kits have been made for the boys in service. This year assistance for prisoners of war will be the special project. Mrs. McEnerney feels that Red Cross work is one of the most important things that can be done and would be very pleased to have more workers.

Mrs. McEnerney, who also acted as Chairman of the Medical and Surgical Relief booth at the Medical Society's Annual Scientific Assembly, reported that the sales of emblems and matches amounted to $250. This money is used for equipping mobile battle stations.

The Auxiliary is planning a luncheon and "white elephant" sale, to be held Tuesday, December 7, for the benefit of the Philanthropic Fund. Mrs. John J. Shugrue is Chairman of Arrangements and will be assisted by Mmes. Robert E. Moran, Edgar E. Quayle, W. Calhoun Stirling, Leo Brison Norris and G. Louis Weller, Jr.

MRS. EDGAR E. QUAYLE
Publicity Chairman

CALENDAR OF MEETINGS

November 1	Nominating Committee
November 3	Business Meeting of Society
November 5	Committee on Arrangements, Annual Scientific Assembly Executive Board
November 10	Scientific Meeting of Society
November 11	Section on Neurology and Psychiatry
November 15	Committee on Public Health
November 17	Scientific Meeting of Society
November 20	Section on Pathology and Laboratory Medicine
November 23	House Committee
November 24	Procurement and Assignment Committee
November 26	Interprofessional Conference
November 29	Executive Board
November 30	Board of Censors

MEMBERSHIP

The following applicants for membership will be voted on at the business session, January 12, 1944:

For Active Membership

Raymond Schwartz, Cornell University—1937
John Alfred White, Medico-Chirurgical College of Philadelphia—1916

For Associate Membership

Frank S. Caprio, George Washington University—1931
Joseph Patrick McMahon, Wisconsin College of Physicians and Surgeons (now Marquette University)—1903

The following applicants for membership will be voted on at the business session, February 9, 1944:

For Active Membership

Albert N. Baggs, University of Pennsylvania—1892
Allen S. Lloyd, Medical College of Virginia—1928
Mortimer Ostow, New York University College of Medicine—1941
Jed Williams Pearson, Jr., Indiana University —1938
Jerome A. Sansoucy, Georgetown University—1936
Stephen F. Verges, Georgetown University—1934
S. Charles Woldenberg, Chicago College of Medicine—1918

For Associate Membership

Thomas A. Christensen, Georgetown University—1935
Louis Eugene Daily, University of Maryland—1937
Herman E. Hilleboe, University of Minnesota—1931

Recent changes in membership status:

Associate Reinstated to Active

Gerald A. Hopkins
Arthur J. Mourot

Resigned
Associate Member

Alexander Simon

MEETINGS

Wednesday, January 12

The Section on Neurology and Psychiatry will present the following program:

1. "How Can the Suicide Rate Be Decreased? The Recognition of Depressions and an Effective Treatment of Ambulatory Patients," ISADORE RODIS, M.D., Professor of Psychiatry, Georgetown University School of Medicine.
2. "Personal Experiences on Guadalcanal," LT. COLONEL MARTIN A. BEREZIN, Medical Corps, United States Army.

Wednesday, January 26

The Section on Pediatrics will sponsor the program, which will consist of a general discussion on problems in infant feeding and problems of nutrition in preschool children. Speakers and titles of papers will be announced.

On The Home Front

The Scientific Exhibit at the annual meeting of the **American Medical Association** will be held at the Palmer House, Chicago, June 12–16, 1944. Exhibits will cover all phases of medicine and the medical sciences with particular emphasis on graduate medical instruction for the physician in general practice. Application blanks for space in the Scientific Exhibit are now available and may be obtained by communicating with the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

"Doctors at War," the fourth series of broadcasts under the general title of "Doctors at Work," presented coöperatively by the American Medical Association and the National Broadcasting Company, will open January 8, 1944. Broadcasts will be given on Saturday afternoons at five o'clock, Eastern War Time, and will run for twenty-six weeks. The Medical Department of the United States Army and the Bureau of Medicine and Surgery of the United States Navy have agreed to permit doctors in the armed forces to participate in the programs. The medical departments of both the Army and the Navy will assist in the technical preparations for the broadcasts.

The American Therapeutic Society held its forty-fourth annual meeting in Cincinnati, Ohio, November 15. **Dr. Oscar B. Hunter** was present at the business meeting to give his Secretary's Report. He also read obituaries for Dr. William Mercer Sprigg and Dr. Joseph Francis Elward, Washington members of the Society who had died during 1943. **Dr. J. Ross Veal** read a paper on the "Treatment of Thrombosis of Peripheral Veins." Among the papers presented by title were two from Washington, "Further Observations on Progressive Ulceration of the Abdominal Wall" by **Dr. Hunter,** and "Hypertensive Encephalopathy—A Clinical Consideration" by **Dr. Arnold McNitt.**

The Department of Ophthalmology of the George Washington University School of Medicine held its semi-annual meeting, December 4, at the School. The following staff members of the Department gave case demonstrations: Drs. William T. Davis, Ernest Sheppard, E. Leonard Goodman, Ronald A. Cox, Frank D. Costenbader, Richard W. Wilkinson, Sterling Bockoven and C. R. Naples.

Colonel Frederic H. Thorne, M.C., U.S.A., gave an address on "Military Aspects of Ophthalmology." The meeting concluded with a paper by Dr. Davis on "Differential Diagnosis of the Vertical Motor Anomalies."

The Section on Neurology and Psychiatry held its November meeting at Gallinger Hospital Auditorium. Case presentations were made as follows: "Visual Agnosia," Dr. Walter Freeman; "Muscular Dystrophy," Dr. Antoine Schneider; "Hypertonic Saline in Alcoholism," Dr. I. Silverman; "Choked Discs," by the Staff.

On December 16 the Section held its meeting in the Society's building. Dr. Jules H. Masserman, Assistant Professor of Psychiatry, University of Chicago, gave an address on "Experimental Neuroses and Therapy."

The Section on Pediatrics met in the Society's building, December 2, to hear a talk by Dr. Wilburt C. Davison, Dean and Professor of Pediatrics of Duke University School of Medicine.

The Section on Gastroenterology held a dinner meeting, November 1, at the Wardman Park Hotel. Dr. David Rioch, of the William A. White Psychiatric Foundation, spoke to the members on the subject, "The Mind-Body Problem and Neurophysiology of the Gastrointestinal Tract."

The George Washington University Medical Society met on November 20. The program consisted of a panel discussion on "Rabies—Its Medical and Veterinary Problems," with Dr. Oscar B. Hunter serving as moderator. Aspects of the disease as a national medical problem were presented by Dr. Karl Habel, Past Assistant Surgeon, National Institute of Health. Dr. Harry W. Schoening, Assistant Chief, Bureau of Animal Industry, U. S. Department of Agriculture, spoke on the disease as a veterinary problem. Dr. D. E. Buckingham, former Dean of George Washington University Veterinary School, Dr. George C. Ruhland, Health Officer, Dr. James C. Cummings, Chief, Bureau of Epidemiology, Dr. Carl Dauer, Assistant Chief, Bureau of Epidemiology, and Dr. R. R. Ashforth, Chief, Veterinary Service, District Health Department, participated in the dicusssion.

The Washington Ophthalmological Society met in the Society's building, November 15. Dr. James S. Shipman of Wills Eye Hospital, Philadelphia, spoke on "Treatment of Retinal Detachment." Case reports were presented as follows: "An Unusual Case of Corneal Dystrophy," Dr. Joseph Dessoff; "Subconjunctival Dislocation of the Lens," Dr. J. B. Peebles of the U. S. Public Health Service.

George Washington University School of Medicine held opening exercises, marking the beginning of the 120th session of the School, November 22. Major General Normal T. Kirk, Surgeon General of the U. S. Army, addressed the 316 medical students assembled together with doctors from the armed services and from civilian life. A letter was read from Lieutenant General Mark W. Clark, in command of the Fifth Army in Italy, praising the work done by doctors attached to the Fifth Army. Following the exercises Dr. Walter A. Bloedorn, Dean of the Medical School, entertained in honor of General Kirk at a luncheon at the Mayflower Hotel.

Over three thousand persons attended the opening of the new **Suburban Hospital**, Bethesda, Md., November 27 and 28. Built at a cost of approximately $750,000 by funds allotted to the Federal Works Administration under the Lanham Act, the Hospital is a modern, one-story structure with a 120-bed capacity. The nurses' home, adjacent to the Hospital, is a white, two-story brick building with accommodations for 50 nurses. The Suburban Hospital Association, Inc., will operate the institution on a non-profit basis for the people of lower Montgomery County and Northwest Washington.

Appointments to the medical staff are not complete. To date the following members of the Society have been appointed to serve on the staff:

Drs. Harry F. Anderson, Garnet W. Ault, Laura N. Baernstein, Emil George Bauersfeld, Carl Berg, Walter W. Boyd, Edward B. Broocks, Dexter M. Bullard, William F. Burdick, Read N. Calvert, Paul D. Cantor, Katharine A. Chapman, Frank D. Costenbader, J. Roscoe Creer, James A. Dusbabek, Fred C. Fishback, Walter Freeman, Robert H. Groh, Mabel H. Grosvenor, Charles R. L. Halley, Frank M. Hand, Henry H. Hazen, Bradley D. Hodgkins, Howard Henry Howlett, George R. Huffman, Don R. Johnson, Michael Kennedy, Preston A. McLendon, John H. McLeod, Willard P. McNeill, G. Haven Mankin, Felipe A. Martinez, Robert E. Moran, Harry A. Ong, Alex A. Preece, Paul S. Putzki, Julius J. Radice, M. Isabel Reith, Duane C. Richtmeyer, Arch L. Riddick, Fred R. Sanderson, Antoine Schneider, Norman C. Shoemaker, John J. Shugrue, W. Calhoun Stirling, Edward J. Stieglitz, Donald Stubbs, William B. Wardrop, J. Francis Warren, James W. Watts, Charles H. Wolohon and Marion S. Brown.

Members of the Medical Society were given an opportunity to inspect the **Third Hospital Train,** Combat Zone type, on November 25 and 26 at Fourteenth Street and Maine Avenue, S.W. The train was en route from Fort Devens, Massachusetts, to the Desert Training Center, Banning, California, where it will be used for training purposes.

This is the first overseas type hospital train to be built in the United States, and has been designed specifically for use in combat areas. Trains of this type are to be used for removing wounded and sick from evacuation hospitals, which are usually within 25 to 50 miles of the front lines, to the larger general hospitals several hundred miles in the rear.

In combat areas the train would ordinarily consist of 22 cars, including 16 Ward Cars, each of which accommodates 16 bed patients or a slightly larger number of sitting patients. The large center area in each car can be converted into an emergency operating room, in cases of necessity, with a litter used as an operating table. Cases of this kind would be rare as patients are given first aid and initial treatment before being placed aboard hospital trains.

Personnel of the train includes four officers, two of whom are doctors and two medical administrative officers, six nurses, including one chief nurse, and 33 enlisted men, all of whom are technical specialists trained in medical work or other duties essential to the operation of the train unit.

The Graduate Nurses' Association held its annual meeting, November 9, in conjunction with the League of Nursing Education. Mrs. Franklin D. Roosevelt was the guest speaker at a joint evening session. Her topic was "A Message to Nurses from the Theaters of War." Dr. Emil J. C. Hildenbrand spoke on "Anesthesia Refrigeration" before League members during the afternoon.

Miss Pearl McIver, Principal Nursing Consultant, U. S. Public Health Service, was elected President of the Graduate Nurses' Association, succeeding Miss Annabelle Petersen.

Dr. Oscar B. Hunter was elected Chairman of the Executive Committee of the Southern Medical Association at its convention in Cincinnati, Ohio, November 16–18.

Dr. Joseph S. Wall was chosen President-elect of the American Academy of Pediatrics at a meeting of the Executive Board in Chicago, November 6.

Major General James Carre Magee, M.C., U.S.A. was named executive officer of the information service of the Division of Medical Sciences of the National Research Council, effective December 1. He will devote full time to the organization of a central office which will collect medical reports and records dealing with military medical practice, civilian practice as affected by the war, medical education and research, and the distribution of diseases. This project was made possible by a recent grant of $75,000 to the Council by the Johnson and Johnson Research Foundation.

General Magee was appointed Surgeon General of the Army in 1939 and was retired on May 31, 1943 on completion of his four-year term of duty. He holds the honorary degree of Doctor of Science from Jefferson Medical College, his Alma Mater, and was recently awarded the Distinguished Service Medal for his outstanding services as Surgeon General.

Theodore Wiprud attended the Annual Conference of Secretaries and Editors of Constituent State Medical Associations of the American Medical Association, held in Chicago, November 19 and 20.

Dr. Matthew White Perry who accompanied Secretary of State Cordell Hull on his recent mission to Moscow, gave impressions of personalities he had encountered before members of the North Washington Lions Club, November 18.

Dr. James A. Gannon has offered the Society the use of his Steinway Concert Grand Piano as a temporary loan. The House Committee accepted Dr. Gannon's generous offer and has placed the piano in the library where its beauty and usefulness can be best appreciated.

At a meeting of the **International College of Surgeons** at the Drake Hotel, Chicago, December 1, **Dr. Max Thorek**, Chief Surgeon of Cook County Hospital, was presented with the Aztec Eagle by the Mexican Government in appreciation of his efforts toward creating better understanding between Mexico and the United States and in recognition of his outstanding contribution to surgery. **Dr. Custis Lee Hall**, a Vice President of the College, was one of the speakers on this occasion.

The late **Dr. Adam Kemble** bequeathed a Piot painting to the Mellon Art Gallery, according to the terms of his will filed for probate in the District Court.

John Wyeth and Brother, Inc., announces that on November 5, in Philadelphia, during National Pharmacy Week, the fifth painting in the Cornwell series, "Pioneers of American Medicine," was unveiled. The 1943 painting is entitled "The Father of American Pharmacy" and depicts William Proctor, Jr. (1817–1872) studying a formula for the standardization of drugs while at work with an assistant in his laboratory. Proctor is the first pioneer of a collateral branch of medicine to be honored in the series. He edited the *American Journal of Pharmacy* and founded the American Pharmaceutical Association. His chief contribution to science was the standardization of drugs.

The Upjohn Company announces that Donald S. Gilmore will succeed Dr. L. N. Upjohn as President of the Company, effective January 1. Dr. Upjohn was elected President in 1930; he will continue his active connection with the company as Chairman of the Board of Directors. Mr. Gilmore became affiliated with the Upjohn Company in 1930; in 1936 he was made Vice President and later General Manager, retaining his position of Vice President.

BOOKS RECEIVED FOR REVIEW

Manual of Cosmetics, Am. ed. CHARLES LAZAR, M.D. Pp. 318, with 12 illustrations. Price, cloth, $5.00. Cleveland: Sherwood Press, 1938.

The Nature and Treatment of Mental Disorders. DOM THOMAS VERNER MOORE, O.S.B., PH.D., M.D., Professor of Psychology and Psychiatry, Catholic University of America. Pp. 312. Price, cloth $4.00. New York: Grune & Stratton, 1943.

Nascent Endocrine Therapy. JOHN FRANKLIN RITTER, M.D. Pp. 317. Caldwell, Idaho: Caxton Printers, 1940.

Allergy. ERICH URBACH, M.D., Chief of Allergy Service, Jewish Hospital, Philadelphia; Associate in Dermatology, University of Pennsylvania School of Medicine; Member, Board of Regents, American College of Allergists, with the collaboration of PHILIP M. GOTTLIEB, M. D., Associate on Allergy Service, Jewish Hospital, Philadelphia; Instructor in Medicine, University of Pennsylvania School of Medicine; Fellow, American College of Allergists. Pp. 1073, with 400 illustrations. Price, cloth, $12.00. New York: Grune and Stratton, 1943.

ADAM KEMBLE, M.D.

(1878–1943)

Dr. Adam Kemble, well known local physician, died November 12, 1943, at Mount Carmel, Pa., following an illness of several months.

Dr. Kemble was born November 11, 1878, at Tower City, Pa. He received the degree of Doctor of Pharmacy from George Washington University in 1901 and the degree of Doctor of Medicine in 1905. He immediately began active practice in the District of Columbia, in later years confining his practice to urology. For many years he was a member of the Executive Committee and Medical Council of Sibley Memorial Hospital. During the first World War he was commissioned a Major in the Medical Corps of the U. S. Army and was stationed at Walter Reed Hospital.

He became affiliated as an Active Member with both the Medical Association and the Medical Society of the District of Columbia in 1906. He was a Fellow of the American Medical Association and a member of the American Urological Association. His membership in non-scientific organizations included the John Gardner Post of the American Legion, the University Club, the Sons of the American Revolution and the Chevy Chase Club.

Surviving are two sisters, Miss Lydia Kemble and Mrs. Laura Kemble, both of Mt. Carmel, Pa., and two brothers, W. Penn Kemble, Mt. Carmel, Pa., and Colonel Franklin Kemble of the Army Coast Artillery Corps, stationed at Fort Barancas, Florida. Dr Kemble never married. He lived at the Cecil Apartments, 1026 Fifteenth Street, N.W., until last July, when he moved to Mt. Carmel because of ill health.

EDWIN ERNEST ROBERTS, M.D.

(1872–1943)

Dr. Edwin Ernest Roberts, an Active Member of the Medical Society of the District of Columbia, died November 28, 1943, at his home, 300 Longfellow Street, N.W., following a six months' illness.

Dr. Roberts was a native of Washington, D. C., born July 11, 1872. He graduated from Georgetown University School of Medicine in 1896 and began active practice in the District during the following year.

In 1922 he was elected to Active Membership in the Medical Society. He was also a Fellow of the American Medical Association and a member of the Masonic Order and Kappa Sigma Fraternity.

Surviving him are his wife, Mrs. Grace Martin Roberts, and two daughters, Mrs. Lois McCullough and Mrs. Mildred Wilks, all of Washington.

(*Continued from page 457*)

the defect to maintain continuity of the urinary passages, and adequate drainage to prevent infection. The judicious use of the sulfonamides to combat infection is advisable. However, no drug nor surgical repair will be of any use unless adequate diversion and drainage of urine is established.

(*Continued from page 467*)

emergency situation. This should be the case in a large hospital which operates a blood bank.

In the treatment of hypoproteinemia, plasma is indicated if anemia is not present, whole blood if it is. The use of whole blood is imperative in the treatment of CO poisoning and methemoglobinemia and is obviously a necessity if one is treating an anemia. Using selected donors, either whole blood or plasma may be used for immune transfusion. Plasma offers the real advantage of bleeding the donor at his convenience and storing the convalescent plasma in the dried or frozen state until it is needed. A deficiency of blood complement or prothrombin may be remedied by fresh whole blood, fresh liquid plasma, or properly reliquefied frozen or dried plasma. It is the consensus that patients with blood dyscrasias should be given fresh whole blood if a transfusion is necessary. When the facilities are available, the red cell "residue" from plasma processing should be utilized as an inexpensive means of treating patients with anemia.

In conclusion, it seems fair to state that the combination of whole blood and plasma offers the medical profession the most ideal and adequate means for the care of persons suffering from traumatic or burn shock, acute infectious and certain other diseases, and those undergoing various surgical procedures. Their potential value in treating acute infection is just beginning to be appreciated. Plasma should continue to be the best of the blood derivatives because it is the least expensive to prepare and use and contains everything that is in whole blood but the cellular elements. Other fractions of blood may be developed which will serve better in special instances. I do not believe, however, that the administration of macromolecular substances, such as pectin or gelatin, will ever prove to be more than a temporary emergency measure in the treatment of shock.

Coming . . .

FOURTH WAR LOAN DRIVE

Buy War Bonds through the Interprofessional Division.

Details will be announced early in January.

MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA

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